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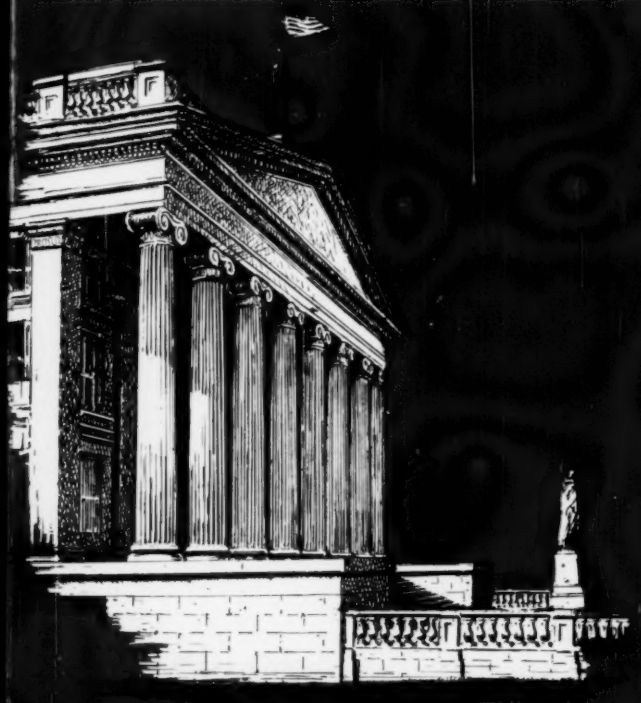

THE COMPTROLLER OF THE CURRENCY • UNITED STATES TREASURY

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The NATIONAL BANKING REVIEW

A JOURNAL OF POLICY AND PRACTICE

VOLUME 1, NUMBER 3, MARCH, 1964

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Contents

Branch Banking and the Structure of Competition ..... *Bernard Shull and Paul M. Horvitz* 301

The Framework of Commercial Bank Regulation: An Appraisal ..... *Donald Jacobs* 343

United States Monetary History: Its Implications for Monetary Theory ..... *J. M. Culbertson* 359

A Note on Time Deposit Theory and Practice ..... *Paul S. Anderson* 381

The Philadelphia Bank Merger Decision and Its Critics ..... *Edward S. Herman* 391

The Philadelphia-Girard Decision: Some Further Comments ..... *Thomas Gale Moore* 407

The Philadelphia Case: Replies to the Rejoinders ..... *Victor Abramson, Deane Carson, David C. Motter, Bernard Shull* 417

Current Legal and Regulatory Developments ..*Roman J. Gerber* 425

Current Banking and Economic Developments ..*Sherman Shapiro* 439

Selected Statistical Data 443

Book Reviews 463

David I. Fand, David Meiselman, Lawrence S. Ritter

► BERNARD SHULL and PAUL M. HORVITZ

This is the first in a series of studies of branch banking underway in the Office of the Comptroller of the Currency. Other studies will be published in the REVIEW *as they are completed.*

Branch Banking and the Structure of Competition

I. *Introduction*

Economic theory suggests that the market structure of an industry has an influence on the competitive conduct and performance of firms within the industry. The principal elements of structure that are believed to influence behavior include the following: number of rivals; their size distribution; the extent of product differentiation (the existence of close substitutes); and the condition of entry. A large number of rivals, little concentration, minimal product differentiation, and relatively free entry are conditions which presumably make for intensive rivalry and socially beneficial economic results. Few rivals, high concentration, significant product differentiation and high barriers to entry describe a less competitive and, presumably, inferior market structure.[1] That intensive competition, as reflected in these elements of structure, is economically and socially beneficial is a basic tenet of the free enterprise system; that a relationship exists between market structure and performance is also a fundamental hypothesis of economic theory.

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[1] Joe S. Bain, *Industrial Organization*, New York: John Wiley & Sons, Inc., 1959.

The existing market structure of any industry may be viewed as resulting from an historical process of interaction between the forces of free enterprise and the institutions of public control. In many industries, public controls have been minimal—so basic that they are normally accepted without thought. Such minimal public policies are reflected in the laws of private property, contract, bankruptcy, and the general prohibitions of antitrust. Where only such policies are applied, the profit motive and technology go a long way toward explaining the development of existing market structures. But elsewhere, as in the case of commercial banking, more extensive public policies have had a far reaching effect. These policies have significantly and directly influenced, if not actually determined, the number of rivals, the degree of concentration, the geographic extent of markets, the kinds of services offered, and the condition of entry.

Our basic objective here is to describe the influence of branch banking on the structure of commercial banking markets. We will not attempt to support or refute hypotheses dealing with the relationships between various aspects of market structure and different kinds of market performance.[2] We will, by and large, assume that there are such relationships and that, in a general way, more competitive market structures result in more desirable performance.

In the first section, we will discuss briefly the current structure of banking markets in the United States and the significance of recent changes in order to establish our framework of analysis. Then, we will analyze various kinds of data and appraise the impact of branch banking on the number of banks, their size distribution and the condition of entry.

II. *Current Market Structure*

A. Competition in Commercial Banking Markets

Commercial banks sell a variety of "products" or "services" to at least several distinct groups of customers. The extent of product-diversity is well known and need not be described here in detail. The several customer groups to which banks "sell" specific types of credit are, to a large extent, distinguished by their geographic mobility, i.e., by their ability to deal with banks located in one or more areas of the country. They range from individuals who, in purchasing credit, are frequently restricted by convenience and their limited reputations to banks in their community, to government security dealers who operate in a national market. Business firms run almost the full gamut of this range. Most small businesses are restricted to banks in local areas; many large ones deal with a large number of banks throughout the nation.

Since markets are composed of groups of firms selling the same or similar products to geographically distinct groups of customers, it follows that commercial banks "produce" and "sell" in many markets, each one characterized by a distinguishable product (be it business loans, consumer loans, municipal securities or some other type of credit or deposit) and a distinguishable group of customers (those limited to dealing with banks in a

[2] Several attempts have been made to do this in recent years. There is a preliminary study by the Markets Unit Section of the Board of Governors indicating that rates paid on time deposits by commercial banks in Minnesota towns are significantly influenced by the competition of savings and loan associations. The same group has and is continuing to investigate other hypotheses relating structure to performance. See "Banking Structure and Reactions to Monetary Stringency or Ease," *Monthly Review*, Federal Reserve Bank of Kansas City, March-April, 1963; and Frank Edwards, "Concentration and Competition in Commercial Banking," Ph.D. dissertation, Harvard, 1963.

particular locality, state, region, or geographically unlimited). To describe the structure of banking markets, then, is an enormous project, for there are many markets.[3]

For the vast majority of banks and bank borrowers and depositors, neither the entire United States nor the individual states represent realistic geographic markets. The banking business is principally local in nature. "The factor of inconvenience," the Supreme Court has observed, "localizes banking competition as effectively as high transportation costs in other industries."[4]

In recent years, a great amount of "structural" data on the number of banks in the United States and their relative importance has been collected and analyzed.[5] However, interpretation of these data has proved extremely difficult. For they are not usually related to local, or, for that matter, to any actual banking markets.

There are, today, over 13,400 commercial banks in the United States. Most, though not all of these, are independent institutions.[6] However, not all of them compete with one another; and therefore, the large number does not suggest the extent of competition in local markets.

Less than one percent of all banks, the 100 largest, hold about 48 percent of all commercial bank deposits. Although the concentration seems high, if all 100 banks competed vigorously with one another commercial banking would be a highly competitive industry. In most important industries, rivals are numbered in the fives and tens, not in the hundreds.

Changes in the total number of banks and *changes* in the relative importance of the top 100 banks are, for the same basic reason, ambiguous measures of changes in competition. Thus, while there have been declines in the numbers of banks in recent years, and even very small increases in the proportion of deposits held by the top 100, these changes cannot support an inference of declining competition. On the other hand, some important structural characteristics of

[3] Our conception of a "market" is the traditional economic one. It is a particular place in which goods or services are bought and sold, and in which the relationship between buyers and sellers is such that the prices of the "same" products tend toward equality. Such a relationship does not necessarily require that *every* customer have equally convenient access to *every* producer. But if a producer can "separate" his customers so that he can charge different prices for the "same" product, he is, in effect, selling in more than one "market." See Alfred Marshall, *Principles of Economics*, 8th edition, London: Macmillan & Co., 1927, pp. 324 ff.; and Joan Robinson, *Economics of Imperfect Competitions*, London: Macmillan & Co., 1950, Chapter 15.

[4] *U. S. v. Philadelphia National Bank, et al.*, 374 U. S. 321 at 358 (1963). See also David A. Alhaldeff, "The Market Structure of Commercial Banking in the United States," *Quarterly Journal of Economics*, February 1951, pp. 63 ff.

[5] See "Changes in the Number of Banking Offices, 1859-1959, and in the Relative Position of Banks, 1921-1953," *Annual Report of the F.D.I.C. 1960*, pp. 27-61; Staff Report of the Board of Governors, *Concentration of Banking in the United States*, Submitted to the Select Committee on Small Business, 82nd Congress, 2d Session, Washington, D. C.: U.S. G.P.O., 1952; Special Staff Report of the Board of Governors, *Recent Developments in the Structure of Banking*, Submitted to the Select Committee on Small Business, U. S. Senate, 87th Congress, 2d Session, Washington, D. C.: U.S. G.P.O., 1962; "Changes in Banking Structure, 1953-62," *Federal Reserve Bulletin*, September 1963; *Bank Holding Companies*, Committee on Banking and Currency, House of Representatives, 88th Congress, Washington, D. C.: U.S. G.P.O., 1963; *Chain Banking*, Report by Wright Patman to the Select Committee on Small Business, House of Representatives, 87th Congress, Washington, D. C.: U.S. G.P.O., 1963.

[6] Over 440 are affiliated with holding companies, and many, though we are not certain of the exact number, are part of chain systems. (See Table 19.)

banking markets have changed in recent years in a manner which suggests an intensification of competition even while the number of banks has fallen and overall concentration has increased.

The local market areas in which banks principally sell their services have been expanding. Improved transportation and communication have given bank borrowers and depositors access to banks inaccessible to them 20 or 30 years ago. The movement of banks into suburban areas through branching has also facilitated this extension of banking markets.

It also appears that the extent of product differentiation among individual commercial banks has been moderated. Deposit insurance, bank examinations and other modern regulations have reduced the importance of differential characteristics founded on customers' beliefs that some are far more reliable than others. The extent of product differentiation between commercial banks and other financial institutions has also diminished. In many areas of the country, commercial banks have encountered increasing competition, in the "sale" of particular types of "products," from savings and loan associations, finance companies, and other financial institutions.[7]

Perhaps the most important change of a structural characteristic in banking has taken place in regard to entry. It appears that the barriers to entry in banking have tended to diminish in recent years. A policy of great restraint developed out of the experience of the 1920's and 1930's.

With the experience of thousands of bank failures between 1920 and 1934, attributed in many instances to weak or under-capitalized banks in population centers unable to support them, bank chartering authorities were alert to prevent a repetition of the overbanked situation of the early 1920's. While it may to some persons now seem a desirable situation to have, as in 1921, more than 30,000 banks with "open doors for borrowers and depositors throughout the United States," bank supervisors and chartering authorities of the 1930's and 1940's knew that many of those banks closed their doors with great losses and hardships to their depositors and were determined that this should not happen again.[8]

However, in recent years, the numbers of newly organized banks have been increasing.

After reaching very low levels in the early 1940's, the number of newly-chartered banks increased substantially for a few years around the end of World War II. In the late 1940's and 1950's, the number fell back to relatively low levels. Since 1953, however, there has been a general upward trend. And as measured

Table 1

Newly Organized Commercial Banks in Continental United States, by Year, 1935-1963

Year	Number of New Banks	Year	Number of New Banks
1935	85	1950	67
1936	59	1951	60
1937	62	1952	67
1938	34	1953	64
1939	32	1954	72
1940	36	1955	115
1941	45	1956	119
1942	18	1957	84
1943	48	1958	92
1944	65	1959	115
1945	115	1960	125
1946	145	1961	108
1947	112	1962	179
1948	78	1963	298
1949	67		

Source: **Annual Reports** of the Federal Deposit Insurance Corporation, for 1935 to 1962 data. For 1963, Board of Governors, Federal Reserve System.

[7] For a review of evidence on the extent of interindustry competition, see Bernard Shull, "Commercial Banking as a 'Line of Commerce,'" *The National Banking Review*, 1, December 1963.

[8] Federal Deposit Insurance Corporation *Annual Report*, 1960, p. 36.

by the number of applications for national bank charters, there has been a striking increase in interest by potential new entrants. (See Table 2.)

In local banking markets, new entry may also take the form of a new branch of a bank located in another area. In considering the record of entry, the extensive branching movement of recent years must be considered. We will argue that the barriers to entry are significantly affected by the laws regulating branch banking.

The number of new entrants, however, does not necessarily reflect the height of these barriers, i.e., the condition of entry. This concept requires some explanation.

B. The Condition of Entry in Commercial Banking Markets

In assessing the competitiveness of market structures in banking, we must consider not only actual competition among existing banks, but also potential competition from new entrants. If the level of prices charged by existing banks is high enough, there is an incentive for new banks to enter the market. Fear of new entry can lead existing banks to charge less than their market power would allow. In this way, low "barriers" to entry can be important factors in producing more competitive results, even if, over a long period of time, actual entry is small.

The condition of entry may be conceived of as determined by several barriers. These include individual barriers associated with product differentiation, absolute cost advantages, and economies of scale.[9] Each operates in a specific way to discourage entry. Before discussing the impact of branch banking on entry, we will describe these barriers.

Table 2

Summary of Actions on Applications for New National Bank Charters, by Years, 1938-1963

Year	Applications Received	Approved	Rejected	Abandoned
1938	12	6	5	12
1939	13	5	3	9
1940	12	4	3	11
1941	9	5	3	3
1942	2	1	0	3
1943	6	2	4	1
1944	21	9	5	0
1945	45	23	11	3
1946	54	28	20	10
1947	39	16	20	10
1948	36	14	16	4
1949	28	10	15	9
1950	28	7	16	3
1951	30	15	6	4
1952	41	15	16	8
1953	44	19	18	9
1954	51	20	15	6
1955	71	41	25	8
1956	59	23	23	7
1957	48	17	18	19
1958	48	16	12	7
1959	79	35	24	16
1960	62	26	37	9
1961	89	36	25	10
1962	153	112	16	21
1963	490	258	175	46

Source: Office of the Comptroller of the Currency.

1. *Product-Differentiation*

Product-differentiation can make entry of a new firm difficult; close substitutes for established trade names and trademarks, well accepted by consumers, cannot quickly or cheaply be provided by new firms. Such preferences are built up through expensive, long-sustained advertising that a newcomer cannot match in a brief period of time. For similar reasons, patent protection can also serve to sustain product-differentiation and discourage new entry. In a study of twenty manufacturing industries, Bain found that product-differentiation was the most important of all barriers to entry.

[9] Joe S. Bain, *Industrial Organization*, pp. 237-265. See also Bain's *Barriers to New Competition*, Cambridge, Mass.: Harvard University Press, 1956, Ch. I-VI.

Despite the importance of these factors in manufacturing industries and even in some financial industries (insurance, securities brokerage, etc.), product-differentiation does not seem to be important as a barrier to entry in commercial banking. Borrowers generally do not consider loans from an old established bank as superior to loans from new banks. Since deposits are insured today, small depositors need not be too concerned about the history of soundness of their bank.

Some large depositors (those with accounts over $10,000) may hesitate to deal with a new bank, but even for these depositors this effect is probably slight since bank failures in the past 25 years have been extremely rare. Moreover, the standards imposed by the supervisory authorities in chartering a new bank and in periodic bank examinations are such that the risk of failure is small. Large depositors are aware of this.

Convenience of location is one aspect of product-differentiation that may play some role in bank entry. It appears that convenience plays a large part in customer choice among banks. Existing banks may have the prime locations. There have been cases in which a group interested in establishing a new banking office in a given community has been unable to find a suitable location.[10] Nevertheless, these seem to be isolated situations; most potential new entrants have not found it difficult to obtain suitable locations. In fact, in many communities, population shifts and growth have made new locations more attractive than those of the existing banks.

2. *Economies of Scale*

In many industries, the existence of economies of scale is an important barrier to entry. Entry can be successful in such a case only if the new firm can quickly acquire a significant share of the market. Bain has analyzed the implications of scale economies for entry as follows:[11]

> Entry to an industry will be deterred by the fact that in order to reach optimal efficiency a plant or firm must supply a significant percentage of market output. If it must, it is likely to be able on the one hand to enter at or near optimal scale only by inducing repercussions that will either lower selling prices or result in the elevation of costs above the minimum optimal level, or on the other hand to enter at insignificantly small scales only with costs well above that level. Established firms can thus elevate their long-run prices somewhat above the lowest-cost level associated with minimum optimal scale without attracting further entry, because either a price reduction or a higher-than-minimal cost will generally be expected by the entrant after his entry. Extending the argument, the larger the percentage of total market capacity or output provided by the minimum optimal scale of plant or firm, and the more steeply unit costs increase with movement to suboptimal scales, the more long-run prices can be elevated above the least-cost level without inducing entry.

Much discussion of branch banking and the banking structure has centered on the issue of economies of scale in banking. A large part of this discussion has suffered from lack of appropriate empirical data. This is not the place for a full analysis of economies of scale, but it appears desirable at this point to cover some aspects of the problem.[12]

[10] It has been alleged that some banks have established branches in some of the best locations around their main operations, in order to preempt these opportunities from potential new entrants.

[11] Bain, *Barriers to New Competition*, p. 93.

[12] A sizeable literature has grown up on this subject in recent years. Some of the more important contributions and work in process include: Alhadeff, *Monopoly and Competition in Banking*, Berkeley: University of California Press, 1954; Benston, *A Statistical Study of the Cost of Banking Operations*, Ph.D. dissertation, Chicago, 1963; Gramley, series of articles in

Part of the conceptual problem is that the theory of returns to scale is derived from analysis of manufacturing production and is not readily applicable to a multi-product service industry, like banking. For a single-product manufacturing firm the concept of economies of scale is reasonably clear: if, when a firm increases production by a given percentage, costs, in the long run, increase by less than that percentage, the firm is subject to decreasing costs or economies of scale.[13]

Problems arise when there is more than one product. With more than one product no physical measure of output is possible, and it is difficult to allocate costs.

These problems, significant though they may be for a manufacturing industry, become even more difficult when we attempt to apply the concept of economies of scale to banking. Of crucial significance is the fact that large banks and small banks necessarily differ in their product mix. Small banks, of necessity, make only small loans. Large banks make both small loans and large loans with the latter predominating. Large loans typically cost less to make and service (relative to the amount of the loan) than small loans. This factor would tend to show a cost advantage for large banks even though small banks may be equally "efficient."[14] Large banks have larger deposit accounts, and these too involve relatively lower servicing costs than the smaller accounts which predominate at small banks.

In discussions of industrial costs the point is often made that economies of scale are generally due to size of *plant* rather than size of *firm*. Multi-plant operations in banking means branch banking. It would be desirable to separate the effects of size of plant from size of firm in studying banking costs, thereby allowing us to compare branch with unit costs. However, while an industrial firm can grow by increasing the size of its plant, in all but the largest cities a bank must establish branches to grow to large size. Thus most large banks are branch banks.

The product mix problem is serious, not only when we compare banks of different size, but also when we compare branch and unit banks. Branch banks tend to do more retail banking than unit banks of the same size. This means that branch banks tend to have a higher proportion of high-income, high-cost instalment loans, a higher proportion of mortgage loans, and often a higher proportion of time deposits.

While the data on economies of scale are not completely clear because of the conceptual problems discussed above, they do provide some information. Ratios computed from FDIC data shown in Table 3 reveal a tendency for costs to decline until a bank reaches a size of $2-5 million in deposits. Costs are then relatively constant until the very large size of $100-500 million is reached. The very

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Federal Reserve Bank of Kansas City *Monthly Review*, 1961-1962; Greenbaum, *An Empirical Study of Cost Functions for Commercial Banks*, Ph.D. dissertation in preparation, Johns Hopkins; Horvitz, "Economies of Scale in Banking," in *Private Financial Institutions*, a series of research studies prepared for the Commission on Money and Credit, Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1963; and Schweiger and McGee, "Chicago Banking," *Journal of Business*, July, 1961.

[13] Economies of scale may represent either technological or pecuniary economies. Technological economies exist when increases in use of all factors of production by a given percentage result in an increase in output of a larger proportion. Pecuniary economies consist of price advantages in buying, such as quantity discounts, resulting from an increase in the scale of purchases. While most economies in banking would probably be technological, there may be some pecuniary economies—purchases of the services of electronic computers may be one.

[14] That is, they may have equally low costs of handling the same size loan.

Table 3

Current Operating Expenses of Insured Commercial Banks by Size Classes, Selected Years, 1953-1962

Bank Size (in millions)	Expenses as Percent of Loans and Investments			
	1953	1957	1961	1962
Less than $1	3.05	3.39	3.93	3.89
$1 to $2	2.72	3.20	3.80	3.75
$2 to $5	2.59	3.13	3.74	3.74
$5 to $10	2.59	3.19	3.76	3.81
$10 to $25	2.65	3.27	3.82	3.93
$25 to $50	2.53	3.25	3.76	3.89
$50 to $100	2.66	3.16	3.64	3.84
$100 to $500	2.33	3.10	3.41	3.63
$500 or more	1.98	2.70	3.16	3.46

Source: Computed from data in FDIC **Annual Reports**, 1953, 1957, 1961, 1962.

largest banks then had lower costs again. For the reasons we have already discussed, these data are not conclusive, but closer analysis of cost data for 1959, taking account of differences in importance of time deposits, and taking branch and unit banks separately, leads to the same conclusion.[15] Moreover, it appears that there are diseconomies of branch structure such that unit banks have lower costs than branch banks of considerably larger size.[16]

On the basis of available evidence, it is reasonable to conclude that a well run bank with $5 million in deposits can compete on a fairly even basis with much larger banks. In metropolitan areas, $5 million would not represent a prohibitively high share of the market, and, moreover, since there are a large number of competing banks already, the effect of the new entrant would be diffused among many banks. Each individual bank's share of the market would be only slightly reduced by the new entry. Thus, in this situation, the economies of scale barrier is not a serious one. In very small markets, a new bank would be unable to achieve optimal size, but since its competitors would also have higher than minimum costs, entry into such markets could be feasible, though probably not very attractive. There are some markets of intermediate size; markets in which the existing bank or banks are of efficient size, but which could not support a new bank of, say, $5 million without significantly affecting the business of existing banks. A new entrant in such a market might have to operate for some time at less than optimal size. In these small and intermediate size markets, the slope of the cost curve up to the minimum cost output is as important as the location of the minimum cost point. The question is, how great a cost disadvantage does a smaller than optimum size bank face?

The data we have indicates a relatively steep decline in the long-run average cost curve over the very small bank sizes. Once banks are over, say, $1 million in deposits, costs decline slowly to the minimum. By Bain's criteria, then, the slope of the cost curve in banking would be judged "shallow."[17] Our general conclusion, therefore, is that economies of scale do not pose a serious barrier to new entry in banking.

[15] See Schweiger and McGee, *op. cit.*, p. 314 ff., and Horvitz, *op. cit.*, p. 26 ff.

[16] Horvitz, *op. cit.*, p. 37.

[17] In Bain's terminology, a shallow cost curve is one "having costs up 1 per cent at 50 per cent of minimum optimal scale, up 2 per cent at 25 per cent of minimum optimal scale, and up 3 per cent at 10 per cent of minimum optimal scale." Medium-sloped cost curves have "costs up 3, 6, and 9 per cent respectively at 50, 25, and 10 per cent of minimum optimal scale." Steep cost curves have "costs up 7, 14, and 21 per cent respectively at 50, 25, and 10 per cent of minimum optimal scale." Bain, *Barriers to New Competition*, pp. 100-101.

Table 4

Reasons for Rejection of Applications to Organize National Banks and Establish Branches, 1941-1950

Insufficient Need	291
Unsatisfactory Management	53
Earnings Prospects Unfavorable	95
Inadequate Capital	43
Control Ownership of Stock Objectionable	4
Inadequate Banking Quarters	4
Better Application from or Priority of Another Group	37
Not in Public Interest	16
Detrimental to Another Bank	7
Other Reasons	3

Source: Office of Comptroller of the Currency.

Table 5

Reasons for Rejections of Applications for New Branches of National Banks in 1962

Insufficient need	34
Priority of another bank's application	25
New bank, needed more time to prove that management and policies are sound	3
Not in public interest	1

Source: Office of Comptroller of the Currency.

3. *Absolute-Cost Advantages*

Another barrier to entry can be traced to "absolute-cost advantages" possessed by established firms. These consist of control of superior production techniques by existing firms, or inability of new firms to acquire the necessary factors of production (labor, capital, management) on terms as favorable as existing firms. Hiring competent clerical and junior management employees is probably no more difficult for new banks than for existing banks. (Complaints about the difficulty of hiring an adequate working force are probably related to the salaries offered.) More concern has been voiced about a shortage of competent senior bank management. With a banking system of over 13,000 banks (many of uneconomic size), it is not surprising that many experience difficulties in finding enough competent management personnel at that level. Some applications for new bank charters have been rejected because of inability of the proposed bank to hire capable management (see Table 4). While to some extent this is a general problem of the industry, it is somewhat more serious for new banks than for existing banks. On the other hand, the opportunity to be top officer of a new bank may be attractive to experienced officers of existing banks. Some bankers may prefer to be president of a small bank rather than vice president of a larger one.

The effect of capital needs on entry in banking is a more difficult matter to resolve. Capital plays a different role in banking than it does in other industries. In other lines of business, equity capital provides the funds for carrying on operations. In banking, capital serves as the base on which deposit volume can be built, and it is the deposits that provide the principal means of purchasing earning assets. The basic purpose of equity capital in banks is to serve as a cushion of protection against losses for depositors. Thus, even in the absence of capital requirements imposed by law or by supervisory agencies, banks would have to maintain some relationship between their capital and their deposits, in order to attract funds from large depositors whose accounts would not be fully insured.

It is difficult to determine what sort of capital/deposit ratio would result in the absence of supervisory pressure, but it is unlikely that it would be higher than ten percent. We have pointed out that a bank with $5 million in deposits may be large enough to compete on a fairly even basis with much larger banks. Thus an efficient-sized bank could be organized with total capital of under $500,000. This

is much lower than the capital needs in most other industries.[18]

During the 1940's and early 1950's bank earnings were relatively low and there may have been difficulty in raising capital for new banks. In recent years, however, it has apparently been rather easy to raise the modest capital needed to organize a small bank. While it is probably easier for an existing bank to raise additional capital (if any is needed to open a new office) than it is for a new bank, capital needs do not now appear to be an important barrier to new entry in banking. In any case, the height of the barrier is certainly lower than in most manufacturing industries.

4. *Regulatory Barriers*

The most important barrier to entry in banking is found not in the economic factors, but in regulatory policy and procedure. Entry into banking has rarely been completely free, but for much of our history formal regulation was limited. The National Banking Act imposed minimum capital requirements as did most state banking laws, but the supervisory authorities had little or no discretionary authority to deny charter applications.

The general view has been that free entry led to "overbanking" during the early part of the 20th Century and was partly responsible for the collapse of the banking system in the Great Depression of the 1930's. It may be that the alleged overbanking during the 1920's is simply a myth. Nevertheless, in reaction to the experience of the banking collapse, the Banking Act of 1935 ended the policy of essentially free entry into banking.

The Banking Act of 1935 required the FDIC to pass on applications for insurance by state chartered banks. Before the FDIC insures a new state chartered bank it must consider: the adequacy of the bank's capital, its future earnings prospects, the character of the proposed management, and the convenience and needs of the community to be served. The Comptroller of the Currency, when chartering a new national bank, must certify to the FDIC that these same factors have been considered. More recent legislation dealing with bank holding companies and mergers not only include these factors but also explicitly require the agency to consider "the effect on competition."

The Committee on Financial Institutions recommended that "the statutory standards applicable to granting of charters and approval of new branches should explicitly include 'the effect on competition.'"[19] This may be desirable in the interest of symmetry, but, as the Committee noted, "in practice, the supervisory authorities tend to apply the same standards to charter and branch applications as to merger and holding company requests." The Comptroller of the Currency has spelled out in detail the procedure involved in making decisions on applications for new charters and branches to the House Banking and Currency Committee.[20] Mr. Saxon's testimony included the statement that "the last consideration, i.e., the general competitive climate in which the new bank would exist, deserves elaboration since the analysis of this factor is all important to our objective of fostering a viable and wholesome competitive banking industry which is re-

[18] Bain has estimated that capital requirements for establishment of an economically efficient plant would be over $125 million in five industries and under $2 million in only three of a sample of eighteen manufacturing industries. See Bain, *Industrial Organization*, p. 252.

[19] *Report of the Committee on Financial Institutions*, Washington, D. C.: U.S. G.P.O., 1963, p. 49.

[20] Statement of James J. Saxon before The House Banking and Currency Committee, May 3, 1963.

sponsive to the needs of the public and the communities they serve."

The real limitation on entry comes not from failure to consider competition in making decisions, but from the "need" criterion. Under present procedures, a new bank may be chartered only if the community "needs" a new bank and if the new bank will not endanger the safety (profits?) of existing institutions.

Banking legislation contains no definition of "need" or means of measuring it. This issue never arises in unregulated industries. The entrepreneur wishing to organize a new steel mill or bowling alley does not have to demonstrate to any regulatory authority that there is a need for his enterprise. In a free enterprise economy, individuals willing to risk their capital may enter most businesses. This is not always the case in banking. In this connection it is interesting to note the following statement by a former chairman of the FDIC:[21]

> The ideal banking situation would be to have "banking facilities within convenient reach of all persons having need of them, and, so far as practicable, giving all persons the opportunity of choosing between two or more competing banks." We believe that the extent to which this ideal is realized can best be determined by economic forces operating in a dual system of free-enterprise banking. That is to say, the practical interpretation of what constitutes need can best be measured by the willingness of individuals to supply capital for new or additional banking facilities. Communities in which a bank can be operated profitably are not long without banking facilities.

Despite such statements, the chartering authorities have rejected many charter applications over the last 25 years on grounds of "insufficient need," even though in each case the applicants were willing to risk their capital in the venture.[22] In all such rejections the chartering authorities are substituting their judgment of need for the "economic forces operating in . . . free enterprise banking."

If promotion of competition is the objective, it is clearly desirable that entry into banking be freer. The difficulty, of course, is that easier entry may endanger the stability of existing banks. It might be noted that only a relatively few charter applications have been denied on grounds of being detrimental to another bank. It is probable, however, that in many cases "insufficient need" really means insufficient business to support existing banks plus a new one. In most industries the question of "need" and the size of the market are related to the barrier imposed by economies of scale. In banking the regulatory authorities have assumed responsibility for estimating the height of this barrier.

The framework of regulation also has analogies to the other economic barriers. We have seen that federal deposit insurance and supervision operate so as to lower the product differentiation barrier to entry. There are legal capital requirements which may affect the absolute-cost advantage barrier. The minimum capital required by law for organization of a new national bank is shown in Table 6. Actually, those legal minimums are usually not the operative ones, since the regulatory authorities generally insist on higher capital. The great leverage that is possible in banking may attract entrants, but some potential entrants may be discouraged by the capital requirements imposed

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[21] Statement of Maple T. Harl to Joint Committee on the Economic Report, *Monetary Policy and the Management of the Public Debt*, 82nd Congress, 2nd Session, 1952, p. 954.

[22] See Tables 4 and 5. Also see Alhadeff, "A Reconsideration of Restrictionos of Bank Entry," *Quarterly Journal of Economics*, May 1963, p. 249.

Table 6

Capital Requirements for Establishing a National Bank

Date of Change in Law	Capital Accounts	Places with a Population of				Outlying Districts with Population over 50,000 where State Laws Require $100,000 or less
		Over 50,000	6,000-50,000	Under 6,000	Under 5,000	
1864	Capital	$200,000	$100,000	$50,000	—	—
	Surplus	—	—	—	—	—
1900	Capital	$200,000	100,000	50,000	25,000	—
	Surplus	—	—	—	—	—
1927	Captial	$200,000	100,000	50,000	25,000	$100,000
	Surplus	—	—	—	—	—
1933	Capital	$200,000	100,000	50,000	—	100,000
	Surplus	—	—	—	—	—
1935	Captial	$200,000	100,000	50,000	—	100,000
	Surplus	$ 40,000	20,000	10,000	—	20,000

Source: 12 USC 51 (RS 5138)

by the regulatory authorities. It should be noted that this is a regulatory barrier only to the extent that the supervisory agencies insist upon higher capital/deposit ratios than the banks consider optimal. While it is difficult to estimate how important this barrier is, it is clear that there would be more people interested in organizing new banks, if they thought they could operate with, say, a five percent capital/deposit ratio. "Inadequate capital" has been one of the most important reasons for rejections of applications for new bank charters by the chartering authorities. It is the sum of these economic and regulatory barriers that determines the condition of entry.

We have considered both the makeup of present markets in banking and the framework for analyzing potential as well as present competition. We can now consider the impact of branch banking on market structure.

III. *The Impact of Branch Banking on Market Structures*

The effect of the branch banking movement on the structure of banking markets has been a subject of controversy for many years—from the earliest debates concerning the First and Second Banks of the United States, through concern over the branches of "wildcat" banks that accepted deposits but did not honor withdrawals, into the 1920's and 1930's when certain fundamental changes in branch banking laws were instituted, and up to today.

The extended controversy over whether and where a bank should have branches requires a word of explanation in light of the acceptance of multiple office and plant firms in almost every private business and industry in the United States. As indicated, when an existing bank establishes its first office in a market area,

Table 7

Number of Commercial Banks and Concentration December 31, 1962

State Classification‡	Number of States	Number of Banks	Average Number of Banks per State	Average Proportions of Deposits Held By Five Largest Banks†
Statewide Branching States	17	1,010	59	75.5
Limited Branching States	17	5,573	328	41.2
Unit Banking States	16	6,831	427	36.6
All States*	50	13,414	268	51.4

Source: Number of banks from **Federal Reserve Bulletin,** April 1963, p. 551; average proportion of deposits held by five largest banks from **Federal Reserve Bulletin,** September 1963, p. 1195.

* Excludes District of Columbia.

† Means of ratios for each state.

‡ For states within each classification, see Appendix A.

new entry, in the economic sense, has taken place. Entry, in banking, however, has been regulated by law.[23]

Branch banking could conceivably affect the structure of banking markets in a number of ways. Through its effect on entry, branching might be thought of as a method by which the geographic limits of banking markets can be extended and the number of competitors increased. On the other hand, critics have contended that branch banking ultimately results in fewer competing banks and higher concentration. Thus, in recent testimony on behalf of the Independent Bankers Association the following statement was made:

> The multibank systems, no matter their form, bank branching systems, or chain banking, tend to have the same effects on competition. . . . Other things being equal . . . the growth of bank holding companies, multibank and chain banking systems tend to diminish competition and make it more difficult for a given businessman to secure loans. . . . One of the major characteristics . . . is their association with and affinity for economic concentrations in the general economy which they serve.[24]

[23] The current debate over branching may seem somewhat analogous to the debate over chain stores in the 1930's. But, in the latter case, it was alleged that chain stores could exact preferential treatment from their suppliers and thus undersell their "unit" competitors. See Federal Trade Commission, *Final Report on the Chain Store Investigation,* S. Doc. No. 4, 74th Congress, 1st Session, Washington, D. C.: U.S. G.P.O., 1934; and Special Congressional Investigating Committee, *Investigation of Trade Practices of Big Scale Retail and Wholesale Buying and Selling Organizations,* House of Representatives, 74th Congress, 1st and 2d Session, Washington, D. C.: U.S. G.P.O., 1935-1936. These investigations culminated in the passage of the the Robinson-Patman Act in 1936. The analogy however, is imperfect. Branch banks cannot gain advantages from suppliers of "resources" (i.e., deposits) by exacting concessions by virtue of their size. Nor, for that matter, can they generally attract depositors by paying higher rates. Interest payments on demand deposits are prohibited, and maximums are in force on time and savings deposit rates. These restrictions are similar to "fair trade" laws in that they prevent "price cutting" (interest rate increases) below a certain minimum (maximum).

[24] Statement by Dr. Robert F. Lanzillotti before the Banking and Currency Committee of the House of Representatives, April 30, 1963.

Table 8

Changes in the Banking Structure, 1953-1962, by Type of Branching Law

State Classification‡	Change in Number of Banks	Change in Number of Branches	Change in Number of Offices	New Bank Charters	Mergers	De Novo Branches
Statewide Branching States	−342	+2,435	+2,093	164	495	2,087
Limited Branching States	−792	+4,020	+3,228	289	1,049	3,289
Unit Banking States	+485	†	+ 485	654	116	†
All States*	−649	+6,455	+5,806	1,107	1,660	5,376

Source: Board of Governors, Federal Reserve System.

* District of Columbia excluded.

† Excludes approximately 300 offices which are technically defined as branches under 68 Stat. 873, Sec. 3(o).

‡ For states within each classification, see Appendix A.

At an extreme, the point of view illustrated by this testimony has struck an alarming note: ". . . unrestrained branch operations would enable a few wealthy urban banks to extend their operations to a point where the independence and prosperity for the poorer banks . . . would be seriously jeopardized."[25]

It becomes important, then, to check carefully the several questions raised by this controversy. (1) Does branch banking result in smaller numbers of competing institutions? (2) Does branch banking result in significantly higher concentration? (3) Does branch banking intensify the threat of entry?

Of paramount importance in exploring these issues is the selection of the appropriate geographic market. Our selection is the local market. We have already indicated the importance of local markets in banking. In addition, it is on the local level that commercial banks are most vulnerable to the charge of monopoly. Even if no close substitutes for bank "products" are available in regional and national markets, there typically are sufficiently large numbers of banks to modify substantially any concern about monopoly. Moreover, the effect of liberalization of state branching laws in national and even in regional markets would probably be to increase the numbers of large banks competing therein. Therefore we believe it is justifiable to devote our attention to the impact of branch banking on the structures of local banking markets.

We will begin by considering the kinds of data frequently cited to support the contentions that branch banking means fewer banks and higher concentration. We will introduce new data which we believe is more significant in analyzing the effects of branch banking. Finally, we will consider the impact of branch banking on the condition of entry.

[25] See Judge Washington's dissent in *Old Kent Bank and Trust Co.* vs. *William McC. Martin*, 281 F. 2d 61, 64 (1960).

Table 9

Changes in the Banking Structure, 1953-1962, by Type of Branching Law (Percent)

State Classification†	Change in Number of Banks	Change in Number of Branches	Change in Number of Banking Offices	Ratio of New Banks to Number of Banks 1953	Ratio of Mergers to Number of Banks 1953	Ratio of New Banks to Mergers
Statewide Branching States	−25.3	+109.5	+58.5	12.1	36.6	33.1
Limited Branching States	−12.4	+139.7	+34.9	4.5	16.5	27.6
Unit Banking States	+ 7.6	—	+ 7.6	10.3	1.8	563.8
All States*	− 4.6	+126.5	+30.3	7.9	11.8	66.7

Source: Board of Governors, Federal Reserve System.
* District of Columbia excluded.
† For states within each classification, see Appendix A.

A. The Decline in Bank Numbers

As mentioned above, it has been argued that branch banking is closely associated with relatively small and declining numbers of banks. The belief that branch banking results in fewer banks is partly based on certain kinds of readily available data. Some of this data is assembled in Tables 7, 8, and 9.

There are currently more banks in states that permit limited branching than in states that permit statewide branching; and there are still more banks in states that do not permit branching at all.[26] In addition, over the last decade (1953-1962) the percentage decline in numbers of banks has been greater in statewide branching states than in states with limited branching. In unit banking states the number of banks has increased over the period.

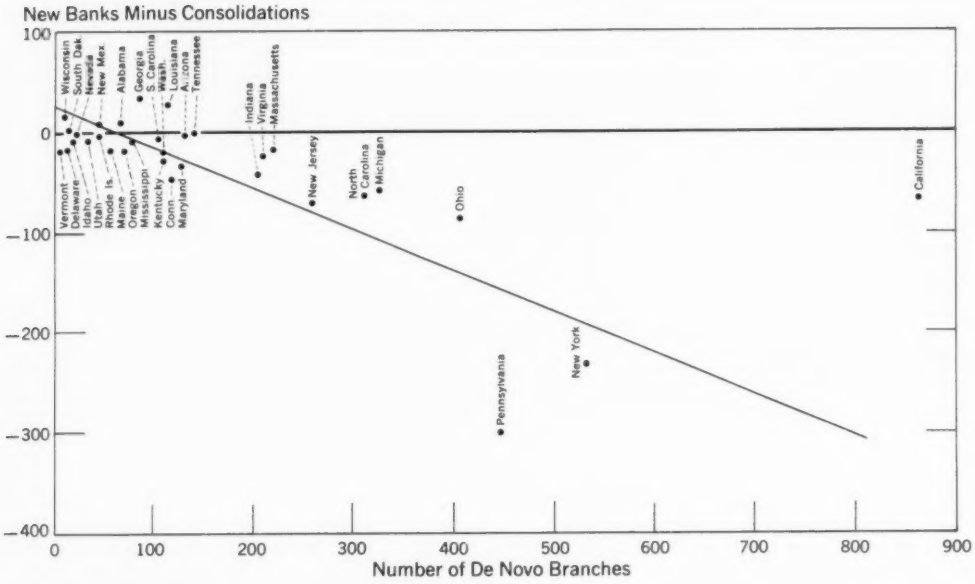
As shown in Table 8, there were 649 fewer banks in 1962 than in 1953—a decline of close to five percent. In unit banking states, however, the number of banks increased by almost 500 over the period. Consequently, taking branch banking states alone, the number fell by 1,134 or almost 20 percent.

The principal cause of bank disappearance was merger. Over 90 percent of all mergers during the period took place in states that permit branching. As can be seen in Table 9, the merger rate (the ratio of mergers, 1953-1962, to the number of banks in 1953) was over twice as high in statewide branching states as in limited branching states; in unit banking states, the number of mergers was insignificant. It is nevertheless true that the bank formation rate (the ratio of new banks organized, 1953-1962, to the number of banks in 1953) was higher in statewide branching states than in unit banking states; but new banks did not come close to compensating for the loss of banks through mergers.

[26] The states within each branch law classification are indicated in Appendix A.

Chart 1

Number of De Novo Branches and New Banks Minus Consolidations in Branch Banking States, 1953-1962



Source: Board of Governors, Federal Reserve System.
Note: Equation of fitted line excluding California: $y = 26.2—.41x$. $r^2 = .67$.

The association between *de novo* branching and bank disappearance in branch banking states is illustrated in Chart 1.[27] As can be seen, the net disappearance figure for the decade 1953-1962 (new banks minus consolidations) generally rises with the number of *de novo* branches.[28]

We cannot conclude from these figures and this association that *de novo* branching has been the fundamental cause of the recent decline in bank numbers. Opponents of branch banking often suggest that unit banks cannot compete with branch banks and are, in effect, "forced" to merge. There is no direct evidence to support the proposition that the spread of branch banking has "forced" unit banks out of business. The high premiums that have been paid in many mergers are evidence to the contrary.

We believe that another explanation of the association found has more to commend it. We can assume that commercial

[27] There are other factors, among which are failures, affecting bank numbers. But these have been of relatively little significance over the period.

[28] A simple linear regression fitted to the data excluding California yielded the following equation: $y = 26.2 - .41x$, where y = (new banks − consolidations) and x = *de novo* branches. Including California, the equation was $y = 6.08 - .24x$. The coefficient of determination excluding California was .67; including California, it was .43. Both correlations are significant at less than the 1 percent level.

Table 10

De Novo Branches and Branches Established Through Merger, by Years, 1953-1962

Year	De Novo Branches	Conversions	Total New Branches (De Novo Branches plus Conversions)	Ratio of De Novo Branches to Total New Branches
1953	280	92	372	.753
1954	341	174	515	.662
1955	442	203	645	.685
1956	522	166	688	.759
1957	501	134	635	.789
1958	540	126	666	.811
1959	584	148	732	.798
1960	771	107	878	.878
1961	788	126	914	.862
1962	874	164	1,038	.842
Total	5,643	1,440	7,083	.797

Source: **Annual Reports** of Board of Governors, Federal Reserve System.

banks will seek to enter areas of large and growing populations where they have the authority. Indeed the volume of "resources" available to them and, therefore, the volume of their "production," depends on the number of people and incomes in the areas in which they are represented by one or more offices.[29] The population movements (for example, to suburban and outlying areas) of the post World War II period, accompanied by economic growth, undoubtedly created "underbanked" populations and therefore, profitable opportunities for new entry by banks; such opportunities would normally attract new offices of old banks and/or new banks.

In this framework, mergers and new branches can be considered alternative ways of achieving the same end; that is, they are substitutes for each other, rather than complements.[30]

Branching and mergers, as well as new charters, are strictly regulated by bank supervisory authorities. They can be as strict or as lenient as they deem necessary.[31] Thus, while liberal branching laws may provide an incentive for mergers, restrictive merger policies would not eliminate the demand for branches. Between 1953 and 1962, about four-fifths of all new branches were established *de novo;* and, as shown in Table 10 the ratio of *de novo* branches to total new branches rose substantially over the period from

[29] For a statistical analysis of the relationships between bank deposits and population, and bank deposits and income in 50 states and 188 metropolitan areas, see Bernard Shull, "Competition in Banking: A New Old Problem," *Business Review,* Federal Reserve Bank of Philadelphia, January 1963.

[30] Merging and branching are not, of course, substitutes in all respects. Merging is a method of retrenchment as well as a method of expansion. In banking, mergers have traditionally been one important way of avoiding bank failure. Branching has not generally served this function.

[31] See Paul M. Horvitz, "Branch Banking, Mergers and Competition," *Banking and Monetary Studies,* Homewood, Illinois: Richard Irwin, Inc., 1963, pp. 312 ff.

Table 11

Change in Number of Branch Banks and Offices, and De Novo Branching, 1953-1958, and 1959-1962

Period	Change in Number of Banks Operating Branches	Change in Number of Branch Offices	Number of De Novo Branches
1953–1958			
Total	651	3,339	2,626
Yearly Average	108.5	556.5	437.7
1959–1962			
Total	609	3,455	3,017
Yearly Average	153	863.8	754.3

Sources: Banks operating branches and branch offices from **Federal Reserve Bulletins**; **de novo** branches from **Annual Reports** of Board of Governors, Federal Reserve System.

.75 to over .85. All other things being equal, we would probably have had a considerable branch banking movement over this period had no mergers at all been permitted. In fact, had mergers been strictly prohibited, the probability is that the demand for *de novo* branches would have been greater than it was. The converse also seems likely. Had *de novo* branching (but not branch banking) been strictly prohibited, the drive to merge might have been even greater.

If the decline in bank numbers has been the result of the expansion of demand in individual market areas, it is unlikely that the recent wave of consolidations and the decline in bank numbers would result in a decline in the number of competitors in local markets. As is indicated below, current data do not suggest any such decline. In any event, as far as local markets are concerned, a replacement movement has been under way; that is, one bank has been replaced by another. It is important to consider the nature of the replaced and replacing banks.

Over the last decade, even while the total number of banks in branch banking states fell by 1,134, the total number of branch banks was increasing by 1,145. These figures imply, of course, that the loss of unit banks in branch banking states has been considerably larger than the data on total numbers suggests. Some unit banks have been lost through merger; it is possible that others have converted to branch banking through *de novo* branching. The decline in unit banking, then, accounts for the high rate of bank disappearance in branch banking states.

It is of some interest that the growing relative importance of branch banks has been going on consistently for a period going as far back as the turn of this century. This would strongly imply that, to bankers, branch banking is a relatively advantageous way of doing business. Throughout the country, it is probable that many banks are relatively inefficient and have, nevertheless, survived for many years. Many small banks are locked in sanctuaries protected against outside competition; they can neither grow to an efficient size nor disappear through failure. Over one-half the banks in the United States have less than $5,000,000 in deposits, and nearly one-quarter have less than $2,000,000. There is, further, some evidence to suggest that the unit banks absorbed through merger in branch banking communities have generally been the relatively inefficient ones. The unit banks surviving in branch banking communities are usually the relatively efficient unit banks and are comparable in efficiency to branch banks in the same area.[32]

[32] For a summary of the evidence, see Irving Schweiger and John S. McGee, *op. cit.*, pp. 230-236. On the large number of banks probably too small to be efficient, see Almarin Phillips, "Competition, Confusion, and Commercial Banking," to be published in *Journal of Finance*, March 1964.

Table 12

Number of Branch Banking Systems and Unit Banks by Years, 1900-1962

Year	Banks Operating Branches	Unit Banks	Ratio of Branch to Unit Banks
1900	87	8,651	.010
1905	196	14,486	.014
1910	292	21,194	.014
1915	397	24,948	.016
1920	530	28,129	.019
1921	547	28,870	.019
1922	610	28,423	.021
1923	671	28,219	.024
1924	706	27,402	.026
1925	719	26,920	.027
1926	743	26,223	.028
1927	739	25,170	.029
1928	774	24,351	.032
1929	763	23,495	.032
1930	750	22,295	.034
1931	722	20,401	.035
1932	680	17,602	.039
1933	584	13,221	.044
1934	.724	14,297	.051
1935	816	14,361	.057
1936	853	14,197	.060
1937	903	13,975	.065
1938	917	13,734	.067
1939	934	13,531	.069
1940	954	13,334	.072
1941	968	13,260	.073
1942	998	13,088	.076
1943	1,097	13,937	.079
1944	1,142	12,850	.089
1945	1,122	12,889	.087
1946	1,086	12,958	.084
1947	1,119	13,062	.086
1948	1,166	13,005	.090
1949	1,226	12,930	.095
1950	1,291	12,830	.101
1951	1,361	12,728	.107
1952	1,359	12,687	.107
1953	1,474	12,507	.118
1954	1,571	12,269	.128
1955	1,659	12,057	.138
1956	1,790	11,850	.151
1957	1,893	11,673	.162
1958	2,010	11,491	.175
1959	2,164	11,310	.191
1960	2,329	11,143	.209
1961	2,484	10,948	.227
1962	2,619	10,808	.242

Sources: From 1900-1939, **Banking Studies,** Board of Governors, Federal Reserve System, 1940, pp. 418 and 428. From 1940-1962, **Federal Reserve Bulletins.**

Note: Private banks excluded through 1942.

We do not wish to imply that unit banks are, of necessity and always, inefficient in comparison with branch banks. But in many cases this is probably true. Sometimes the problem is one of size; i.e., the unit bank cannot grow to an efficient size because of the dispersion of population. In other cases, the problem may simply be a lack of competition to stimulate incentives.

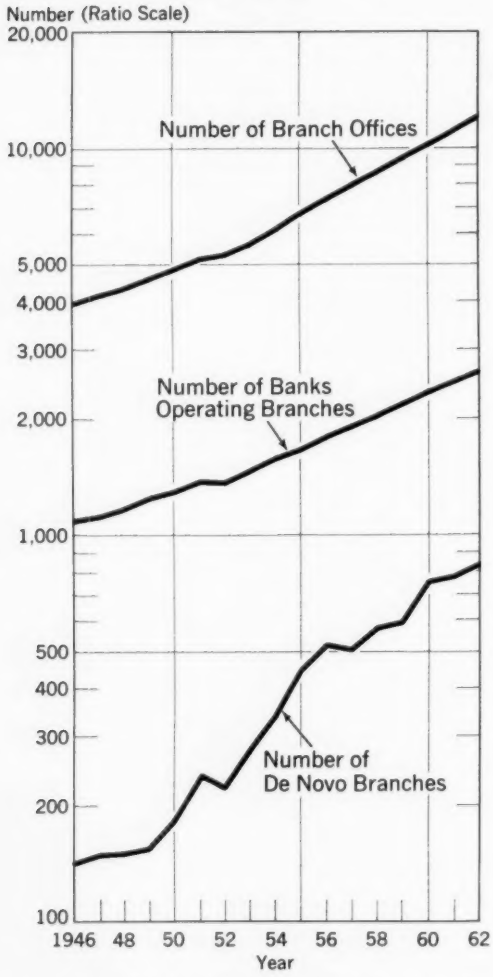
Branch banking has continued to expand in recent years, but the decline in bank numbers has slowed down. As shown in Table 11, over the last four years (1959-1962) the number of banks operating branches has increased by over 600. Branch banks are now close to one-quarter the number of unit banks and almost 20 percent of all commercial banks in the United States. (See Table 12.) Over the last four years, the number of branch offices has increased by 3,455—close to 30 percent—and the number of *de novo* branches has risen substantially. The rapid and persistent expansion of branch banking is illustrated in Chart 2. On the other hand, the number of banks has not fallen significantly in the last four years—by less than six-tenths of one percent.

A combination of more new charters and somewhat fewer consolidations has resulted in the substantially diminished rate of bank disappearance. As shown in Table 13 there were 1,049 consolidations between 1953 and 1958—an average of 175 a year; there were 560 newly chartered banks—an average of 93 a year. As a result of these two factors, there was a net loss of 489 banks over the period—an average net loss of 82 banks per year.

However, between 1959 and 1962, there were 618 consolidations—an average of 155 a year; there were 547 new charters—an average of 137 a year. As a result, there was a net loss of 71 banks or 18 per year. The loss rate, then, was less than one-fourth the rate in the earlier period.

Chart 2

Number of Banks Operating Branches, Branch Offices and De Novo Branches, 1946-1962



Source: Data on branch offices and banks operating branches from **Federal Reserve Bulletins**; data on **de novo** branches from **Annual Reports** of the Federal Deposit Insurance Corporation.

A good portion of this diminished rate is traceable to the establishment of many new banks in unit banking states. But it is noteworthy that the number of newly-chartered banks has risen and the number of consolidations dropped somewhat in branch banking states, as well. As shown in Table 14, new charters averaged 39 a year between 1953 and 1958 in branch banking states; consolidations averaged 162 a year. The average yearly loss, as a result, was 122 banks. Between 1959 and 1962, new charters averaged 54 a year, while consolidations averaged 142; the average yearly loss was 88 banks.

A review of mergers and new charters in recent years reveals that the bank disappearance peak for all states was reached in 1954 or 1955. This is apparent in Chart 3. In branch banking states also, net losses (new banks minus consolidations) reached a high point in the mid-1950's. This is true despite the fact that *de novo* branching has continued to show substantial increases.

We cannot conclude from current trends, however, that bank numbers have now stabilized in branch banking states, although it does seem unlikely that further reductions, in the same volume as in earlier years, will be forthcoming. Of course, any substantial change in the laws or in policies could alter the current trends significantly. However, on the basis of our analysis discussed below, there is no basis for a conclusion that this would mean fewer competitors.

B. Bank Numbers in Non-metropolitan Area Communities

Despite concern about a declining number of banks, the number of competitors in particular markets are of far more importance. Neither data for states nor groups of states can be used as a substitute for local data in discussing the structure of bank competition in local markets. There is no reason to assume that what is true at the state level is also true at the local level. In a branch banking state, one bank can be represented in many communities; thus, in comparison with

Table 13

Analysis of Changes in Bank Numbers, 1948-1952, 1953-1958, and 1959-1962

Period	Number of Banks Beginning of Period	Change in Number of Banks over Period	New Banks over Period	Consolidations over Period	New Banks Minus Consolidations	Ratio of New Banks Minus Consolidations to Banks at Beginning of Period
1948–1952						
Total	14,181	—135	355	425	— 70	— .49%
Yearly Average		— 27.0	71	85	— 14	— .10%
1953–1958						
Total	14,046	—545	560	1,049	—489	—3.48%
Yearly Average		— 90.8	93.3	174.8	— 81.5	— .58%
1959–1962						
Total	13,501	— 74	547	618	— 71	— .53%
Yearly Average		— 18.5	136.8	154.5	— 17.8	— .13%

Source: **Annual Reports** of Board of Governors, Federal Reserve System.
Note: Includes District of Columbia; Alaska and Hawaii included only in 1959 to 1962 period.

unit banking states, the total number of banks in the state could easily understate the number of independent and presumably competitive institutions at the local level.

In order to determine the extent to which the statewide data is systematically biased in this respect, local data have been collected, and an analysis of bank numbers has been prepared. We will first discuss the numbers of different and presumably competing banks in communities of various sizes in non-metropolitan areas; then we will discuss the numbers in metropolitan areas.[33] States have been grouped into three classifications: states permitting statewide branching; states

[33] The number of independent banks in each community outside metropolitan areas was determined by reference to *Polk's Bank Directory* for March 1961 and the 1960 *Census of Population*. The communities include all unincorporated "places" with populations in excess of 1,000, in addition to all incorporated "places." Each different banking "firm" represented by one or more offices in the Census community was obtained by reference to *Polk's* and counted as one "competing" bank. Some of the communities with banks listed in *Polk's* are not included in the Census; it is likely that they are identified differently in the latter source. Their omission would result in some underestimate of the number of banks per community. Some Census communities are probably sufficiently close together to be considered one banking market. This also would lead to some underestimate of the actual number of banks per "local market area." Neither source of error seems to be of sufficient magnitude to alter significantly the data collected or the conclusions reached. However, the last mentioned source of error should be included within the general category of problems resulting from a failure to differentiate communities on the basis of their proximity to one another. It is reasonable to believe that the number of banks in a town depends not only on population, but also on the proximity of banks in other towns. The true influence of branch banking laws is likely to be somewhat obscured by a failure to hold this "proximity factor" constant. We believe the population-regional cross classification presented below serves, in a rough way, to do this.

Table 14

Analysis of Changes in Bank Numbers in Branch Banking States, 1953-1958 and 1959-1962

Period	Number of Banks Beginning of Period	Change in Number of Banks over Period	New Banks over Period	Consolidations over Period	New Banks Minus Consolidations	Ratio of New Banks Minus Consolidations to Banks at Beginning of Periods
1953–1958						
Total	7,687	—768	235	969	—734	—9.55%
Yearly Average		—128.0	39.2	161.5	—122.3	—1.59%
1959-1962						
Total	6,919	—360	216	568	—352	—5.09%
Yearly Average		— 90.0	54.0	142.0	— 88.0	—1.27%

Source: Board of Governors, Federal Reserve System.
Note: Excludes District of Columbia, Alaska and Hawaii.

permitting limited branching; and states prohibiting branches, that is, unit banking states.[34] Communities within each state have been classified according to population size, in the belief that size of community is probably the most important factor in determining the number of banks in local communities. As will be discussed below, the data have been further subclassified by geographic regions as well, on the assumption that other factors, such as income, economic structure, the proximity of communities and historic factors can have an influence on the number of different banks in a particular community. While direct quantification of all these factors has not been successful thus far, it is hoped that they might be partially accounted for by regional breakdowns.

Table 15 summarizes data on the average numbers of *different banking institutions*, per non-metropolitan community, in states with different types of branching laws. Ten size classes of communities are listed, ranging from those with less than 500 people to those with over 25,000.

As expected, the ratios consistently rise with population in each of the three branch-law classifications. It will be no surprise to those acquainted with banking that the number of banks per community, even in fairly large communities, is relatively low. Thus, for the United States as a whole, the average does not exceed two banks until we reach communities with over 10,000 people. Only in communities with over 25,000 people do we find an average in excess of three banks.

In all, we found a little less than 12,000 banks in about 15,000 communities, or an average of about three-quarters of a bank per community. Clearly, in the vast majority of communities in the United States outside of metropolitan areas, banks are few in number.

In each branch-law classification, the average number of banks per community, for all communities, is less than one. Somewhat surprisingly, states with lim-

[34] See Appendix A.

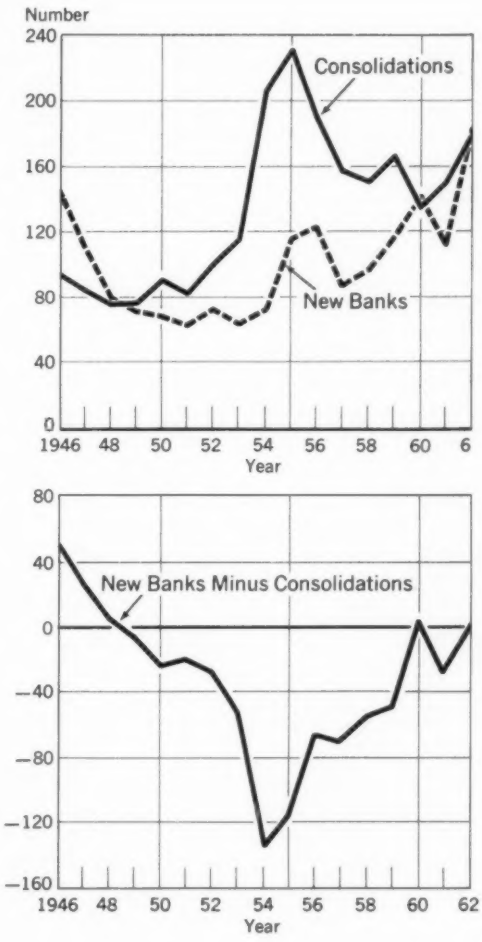
ited branching have the highest average, followed by states with unit banking, and then states with statewide branching. While this is true, all the averages are low and relatively close to one another. The difference that separates the highest (.853 for states with limited branching) and the lowest (.691 for states with statewide branching) represents no more than one-sixth of a bank per community.

In addition, the number of competing banks per community is not consistently higher in any one branch-law group. In the various size classifications, the ranking of the three ratios differ. Unit banking states rank first in six of the ten size classes; these are, in the main, the smaller communities where banks are relatively few. We cannot draw a significant *competitive* distinction between communities which have, on average, .921 banks and communities that have, on average, .807 or .688 banks; that is, in the 1,000 to 1,999 population class. For not only are the differences small, but it is probable that most of these communities have no more than one bank. On the other hand, communities in branch-banking states show to better advantage in the larger population classes—those with 10,000 inhabitants and over. Here, where two or more banks are evidently not a rarity and, therefore, different numbers have some different competitive significance, statewide branching communities generally have relatively higher ratios.

While the average number of competing banks per community is not very different in branch and unit states throughout the country, it is conceivable that factors associated with geographic distinctions have tended to obscure differences that actually do exist. The three classes of branching laws tend to segregate states into geographic regions. The limited branching states are concentrated in the East; the unit branching states in the Midwest; and the statewide branching states in the West. Consequently we have made further comparisons of average numbers of banks within a number of distinguishable geographic areas. Table 17, showing the average number of banks per community in the various population

Chart 3

New Commercial Banks and Consolidations, 1946-1962



Source: **Annual Reports**, Board of Governors, Federal Reserve System.

Table 15

Average Number of Different Banks per Non-Metropolitan Area Community, 1960, by Type of Branching Law

Population Size of Community	States with Statewide Branching	States with Limited Branching	Unit Banking States	United States
Less than 500	.123	.339	.308	.290
500 — 999	.530	.723	.779	.722
1,000 — 1,999	.688	.807	.921	.827
2,000 — 2,999	.879	1.048	1.148	1.048
3,000 — 4,999	1.093	1.249	1.353	1.253
5,000 — 7,499	1.565	1.652	1.842	1.692
7,500 — 9,999	1.845	1.911	2.019	1.938
10,000 — 14,999	2.262	2.115	2.105	2.140
15,000 — 24,999	2.644	2.408	2.377	2.444
25,000 and over	3.286	2.861	3.085	3.023
Average	.691	.853	.725	.766

Source: **Census of Population 1960; Polk's Bank Directory,** March 1961. For number of banks and number of communities in each population class, see Table 16.
Note: For states within each branch-law classification, see Appendix A.

Table 16

Number of Banks and Non-Metropolitan Area Communities, 1960, by Type of Branching Law

Population Size of Community	States with Statewide Branching		States with Limited Branching		Unit Banking States		United States	
	Number of Banks	Number of Communities	Number of Banks	Number of Communities	Number of Banks	Number of Communities	Number of Banks	Number of Communities
Less than 500	110	892	596	1,760	1,064	3,457	1,770	6,109
500 — 999	201	379	807	1,116	982	1,261	1,990	2,756
1,000 — 1,999	362	526	936	1,160	955	1,037	2,253	2,723
2,000 — 2,999	218	248	476	454	481	419	1,175	1,121
3,000 — 4,999	235	215	546	437	491	363	1,272	1,015
5,000 — 7,499	169	108	418	253	357	197	944	558
7,500 — 9,999	107	58	237	124	218	108	562	290
10,000 — 14,999	138	61	313	148	221	105	672	314
15,000 — 24,999	119	45	248	103	183	77	550	225
25,000 and over	115	35	226	79	182	59	523	173
Total	1,774	2,567	4,803	5,634	5,134	7,083	11,711	15,284

Sources: **Polk's Bank Directory,** March 1961; **Census of Population,** 1960.
Note: For states within each branch-law classification, see Appendix A.

classes in each of seven geographic areas, summarizes these comparisons.[35] Inspection and reference to the rankings in this table will show that states with unlimited branching show a clear superiority in many of these comparisons.[36] This is true even in the very small communities. The seeming advantage of unit banking in the smaller population classes disappears when regional comparisons are observed. The advantage of statewide branching in the larger population classes is maintained in regional comparisons.

The number of "1's" in those states with statewide branching suggests that branch banking, far from resulting in fewer competitors in the crucial local market, frequently results in more within any given region and population class. A summation and averaging of these ranks is shown in Table 18. The highest average rank of all is for communities in states with statewide branching. The unit banking communities show a higher average rank (higher number of banks per community) than the communities in states with limited branching.

To a certain extent, these data probably overestimate the number of *independent* institutions in unit banking states and, to a lesser extent, in limited branching states. This is true because of holding company and chain banking affiliations. As is shown in Table 19, most holding company affiliations are found in unit banking states. Ideally, we would like to adjust for these affiliations, for we cannot assume that banks owned by the same corporations or individuals are competitive.

Our finding of relatively few banks in limited branching communities is somewhat surprising. However, it should be noted that in many rural communities in states with limited branching the branching law does not facilitate inter-city competition among banks. In particular, the large and aggressive metropolitan area banks are frequently prohibited from establishing branches any significant distance from their metropolitan area.

C. Bank Numbers in Metropolitan Areas

One step above the community level, we find standard metropolitan statistical areas—typically groups of counties at the centers of which there are one or more major cities. Table 20 summarizes data on the average number of independent banks in metropolitan areas.

As can be seen, the average number of banks in each branch-law classification rises with population. But, while all three categories start out with about the same average number of banks in the 50,000-99,999 population class, the number in unit banking states rises much more rapidly than the numbers in the other two. In metropolitan areas with 1,000,000 people and over, the average number of banks in unit banking states is truly impressive—over 100 and about four times that of states with statewide branching.

By comparison with the non-metropolitan communities, the numbers in all three categories of states are high. Even where the difference between branch law classifications is greatest, in the largest metropolitan areas, the number in statewide branching cannot be considered small.

The reason for increasing divergence between numbers in unit and branch banking communities, as size of area increases, is not immediately obvious. Such a divergence is not evident in the non-

[35] The highest (1) second highest (2) and lowest (3) ranks refer to the average number of banks in each population-region category. The states included in each region are listed in Appendix B. The regions are admittedly somewhat arbitrary, as all such classifications must be to some degree. The states in each region are contiguous and in many ways similar to one another. The regions were also chosen to facilitate comparisons among states in different branch-law categories.

[36] Mean values of ranks are used in case of ties. In some categories, only two-way comparisons are available.

Table 17

Average Number of Commercial Banks per Non-Metropolitan Area Community, 1960, by Population, Region and Type of Branching Law with Comparative Rankings

Population-Region	States with Statewide Branching		States with Limited Branching		States with Unit Banking	
	Number of Banks	Comparative Ranking	Number of Banks	Comparative Ranking	Number of Banks	Comparative Ranking
Less than 500						
New England	.23	—	—	—	—	—
Middle Atlantic	.34	1	.25	2	—	—
Southeast	.17	2	.23	1	.09	3
Middlewest—North	—	—	.39	1	.35	2
Middlewest—South	—	—	.42	1	.18	2
Western Plains	—	—	.39	1.5	.39	1.5
Far West	.10	1	0	3	.09	2
500 — 999						
New England	.71	—	—	—	—	—
Middle Atlantic	.69	1	.59	2	—	—
Southeast	.63	1	.62	2	.31	3
Middlewest—North	—	—	.82	2	.83	1
Middlewest—South	—	—	.70	2	.75	1
Western Plains	—	—	.96	1.5	.96	1.5
Far West	.48	2	.42	3	.53	1
1,000 — 1,999						
New England	.75	2	.44	3	.80	1
Middle Atlantic	1.21	1	.67	2	—	—
Southeast	.68	2	.94	1	.38	3
Middlewest—North	—	—	.86	2	1.03	1
Middlewest—South	—	—	.85	2	.90	1
Western Plains	—	—	1.03	2	1.19	1
Far West	.58	2.5	.58	2.5	.76	1
2,000 — 2,999						
New England	1.00	1.5	.78	3	1.00	1.5
Middle Atlantic	1.71	1	.93	2	—	—
Southeast	.73	3	1.03	1	.77	2
Middlewest—North	—	—	1.10	2	1.18	1
Middlewest—South	—	—	1.15	2	1.17	1
Western Plains	—	—	1.33	2	1.43	1
Far West	.89	2	.60	3	1.14	1
3,000 — 4,999						
New England	.96	1	.83	3	.86	2
Middle Atlantic	1.80	1	.98	2	—	—
Southeast	1.02	2	1.52	1	.68	3
Middlewest—North	—	—	1.29	2	1.55	1
Middlewest—South	—	—	1.31	2	1.38	1
Western Plains	—	—	1.56	2	1.78	1
Far West	1.17	2	.89	3	1.32	1

Table 17 (Cont.)

Population-Region	States with Statewide Branching		States with Limited Branching		States with Unit Banking	
	Number of Banks	Comparative Ranking	Number of Banks	Ranking Comparative	Number of Banks	Comparative Ranking
5,000 — 7,499						
New England	1.53	1	1.14	3	1.33	2
Middle Atlantic	2.14	1	1.59	2	—	—
Southeast	1.65	2	1.87	1	1.38	3
Middlewest—North	—	—	1.59	2	1.87	1
Middlewest—South	—	—	1.78	2	1.85	1
Western Plains	—	—	2.00	2	2.17	1
Far West	1.39	2	.80	3	1.91	1
7,500 — 9,999						
New England	2.08	1	1.00	3	1.50	2
Middle Atlantic	1.50	2	1.80	1	—	—
Southeast	1.81	2	2.00	1	1.64	3
Middlewest—North	—	—	1.79	2	2.15	1
Middlewest—South	—	—	2.24	1	2.00	2
Western Plains	—	—	2.00	2	2.22	1
Far West	1.77	3	2.00	1.5	2.00	1.5
10,000 — 14,999						
New England	2.00	1.5	1.75	3	2.00	1.5
Middle Atlantic	4.00	1	2.03	2	—	—
Southeast	2.36	1	2.15	2	1.91	3
Middlewest—North	—	—	2.17	1	2.08	2
Middlewest—South	—	—	2.23	1	2.03	2
Western Plains	—	—	2.20	2	2.40	1
Far West	2.24	2	1.75	3	2.33	1
15,000 — 24,999						
New England	2.33	1	2.00	2.5	2.00	2.5
Middle Atlantic	3.50	1	2.28	2	—	—
Southeast	2.64	2	2.41	3	3.00	1
Middlewest—North	—	—	2.39	2	2.43	1
Middlewest—South	—	—	2.78	1	2.17	2
Western Plains	—	—	3.00	1	2.55	2
Far West	2.65	2	2.00	3	2.67	1
25,000 and over						
New England	2.71	1	2.50	3	2.67	2
Middle Atlantic	4.00	1	3.11	2	—	—
Southeast	3.00	2.5	3.00	2.5	3.33	1
Middlewest—North	—	—	2.86	2	2.89	1
Middlewest—South	—	—	2.60	2	2.71	1
Western Plains	—	—	5.00	1	3.43	2
Far West	3.85	1	2.20	3	3.17	2

Source: See Table 15.

Note: Rankings refer to the highest (1), next highest (2) and lowest (3) average number of banks per community in each population—region classification. For states within each branch-law classification, see Appendix A. For states within each regional classification, see Appendix B.

Table 18

Average Rankings of Number of Banks per Non-Metropolitan Area Community, by Type of Branching Law

	States with Statewide Branching	States with Limited Branching	States with Unit Banking
Average of three-way comparison	1.75	2.39	1.86
Average of two-way comparisons of Limited Branching and Unit Banking		1.70	1.30
Average of two-way comparison of Statewide Branching and Limited Branching	1.10	1.90	

Source: Table 17.

Table 19

Number of Banks Affiliated With Holding Companies, 1962, By Type of Branching Law

Statewide Branching States	26
Limited Branching States	157
Unit Banking States	259
All States	442

Source: **Federal Reserve Bulletin**, July 1963, p. 1012.

Note: For states within each branch-law classification, see Appendix A.

metropolitan communities; to the contrary, in the larger communities we generally found more banks under branch banking. It would seem then that the particular divergence we have observed is uniquely related to the geographic nature of standard metropolitan areas.

Metropolitan areas must generally be considered as single local markets where branch banking is permitted. This is true of the large areas as well as the small. The center city banks themselves can provide direct service and access to their institutions throughout all suburban areas. In any one suburban section, served by one or more center city banks, there are pressures making rates similar to those existing in all other sections. The threat of entry, via branching, tends to keep rates from rising to levels consistent with supply and demand conditions in the suburban section alone. Moreover, some rates, e.g., those on savings deposits and consumer loans, are typically advertised, and geographic discrimination is impractical.

However, the unit banking metropolitan area presents a different case. There will be some people who live and work in the suburban areas and, thus, do not have direct access to the banks based in the center of the city. Moreover, people in one suburb will not necessarily have direct access to banks in other suburbs, even if they work or conduct their business in the center city. There will be less pressure from the threat of entry to prevent wide disparities in rates. Thus, Schweiger and McGee found, in the case of new automobile loans and unsecured personal instalment loans, ". . . a major difference in rates between adjacent territories which were separated only by legal barriers governing entry of banking competition."[37] Thus, for many people the

[37] Schweiger and McGee, *op. cit.*, p. 258. In addition many of the small neighborhood banks in unit banking areas may not offer a full line of services, and therefore cannot be considered full fledged competitors. (*Ibid.*, pp. 265 and 271-272.) A reduction on rates on automobile and personal loans in Westchester and Nassau Counties, New York, was observed soon after legislation was passed permitting New York City banks to branch into these counties. This reduction suggests the incorporation through branch banking of these suburban counties into the New York City banking market. See the Decision of the Comptroller of the Currency on the Application to Merge of the National Bank of Westchester and The First National

Table 20

Average Number of Different Banks Per Standard Metropolitan Area, June 1962, by Type of Branching Law

Population Size of Metropolitan Area*	States with Statewide Branching	States with Limited Branching	Unit Banking States	United States
50,000 — 99,999	4.75	6.40	6.23	6.00
100,000 — 499,999	7.38	10.35	14.97	10.99
500,000 — 999,999	12.38	13.07	38.83	18.21
1,000,000 and over	27.60	47.17	105.67	58.17
All Metropolitan Areas	10.22	15.07	24.23	16.74

Source: Board of Governors, Federal Reserve System. For number of banks and number of metropolitan areas in each population class, see Table 21.

* Excludes District of Columbia

Note: Data are adjusted for holding companies. For states within each branch-law classification, see Appendix A.

Table 21

Number of Different Banks and Number of Standard Metropolitan Areas, June 1962, by Type of Branching Law

Population Size of Metropolitan Area*	States with Statewide Branching		States with Limited Branching		Unit Banking States		United States	
	Number of Banks	Number of Areas	Number of Banks	Number of Areas	Number of Banks	Number of Areas	Number of Banks	Number of Areas
50,000 — 99,999	19	4	32	5	81	13	132	22
100,000 — 499,999	214	29	683	66	554	37	1451	132
500,000 — 999,999	99	8	196	15	233	6	528	29
1,000,000 and over	138	5	566	12	634	6	1338	23
Total	470	46	1477	98	1502	62	3449	206

Source: Board of Governors, Federal Reserve System

* Excludes District of Columbia

Note: Adjusted for holding companies. For states within each branch-law classification, see Appendix A.

number of alternative sources could be considerably less than the number of banks in the area. The larger the area, the more numerous the markets contained therein.

It is reasonable to believe, therefore, that, in comparing numbers of banks in metropolitan areas with different branching laws, we are comparing the number in one local market in branch banking

City Bank of New York, December 19, 1961. A recent study of branch banking in New York indicates that most branch banks report no differences in prices between head offices and their out-of-town branches. See *Branch Banking, Bank Mergers and the Public Interest,* New York State Banking Department, January 1964, pp. 24-25. These findings suggest that suburban customers in a branch banking metropolitan area can conveniently avail themselves of the most competitive rates throughout the area.

areas to the number in several local markets in unit banking areas. If this is true, the increasing divergence between numbers of banks in unit and branch banking metropolitan areas, as the areas grow larger (presumably in space as well as in population), should be expected. As in the case of states with different branching laws, metropolitan areas with different branching laws, especially large ones, probably do not offer a true comparison of the number of alternative banking facilities available to the vast numbers of "local customers."

We do not wish to imply by this argument that local bank customers in branch banking metropolitan areas always or even generally have more alternatives than all groups of local customers in unit banking areas; this implication raises questions that should be tested directly. However, it seems clear that legal restrictions on branching create an unrealistic image of intense competition. There is a natural tendency in a country where free trade is the norm to look at numbers of firms and ignore geographic barriers that keep them from competing. Given the nature of banking, the legal restrictions themselves create these barriers; and wherever they exist—at the national level, the state level, and at the metropolitan area level, as well—there is a danger of overestimating the number of actual competitors.

D. Concentration Ratios

In banking as in other industries, concentration ratios partially reflect the size distribution of banks in particular markets. But the importance of banking ratios is open to some question. It is reasonable to believe that the proportion of total output of any particular product accounted for by the two, four or eight largest producers will permit inferences about the extent of conscious interdependence among them. In conjunction with the number of smaller firms in the industry and the proportion of production they account for, a further inference concerning the competitive influence of the "fringe" producers is possible.

In banking, available concentration ratios show either the proportion of total deposits or assets held by the largest banks in the market area. Total deposits include both time and demand deposits. For the former, at least, other financial institutions, not considered in the concentration ratios, offer close substitutes. In addition, the significance of demand deposit concentration, where the principal form of price competition has been prohibited by law, is moot. Total assets include a wide variety of "products." We have no way of knowing the extent to which these ratios reflect concentration in business loan markets. Here also substitutes are available. As a result, the ratios may overstate the actual degree of concentration in any particular product line. There is no easy way of detecting the extent of the error.[38] Consequently, we will not attempt any adjustment and will simply interpret the available ratios *as if* they were accurate. Our conclusions, however, must be modified accordingly.

In non-metropolitan communities, banks are generally so few in number that there seems little purpose in investigating the proportion of deposits or assets held by the largest banks. Differences in concentration ratios are in all probability insig-

[38] Empirical testing of relationships between such concentration ratios and bank performance have thus far, been inconclusive. See Almarin Phillips, *op. cit.* See also Deane Carson and Paul H. Cootner, "The Structure of Competition in Commercial Banking in the United States," *Private Financial Institutions*, a series of research studies prepared for The Commission on Money and Credit, Englewood Cliffs, N. J.: Prentice Hall, Inc., 1963. pp. 83-91.

nificant, because concentration must be extremely high when we find one, two or three banks in a community, and also because the average number of banks in branch and unit banking communities are sufficiently similar to conclude that in all probability we cannot make legitimate economic distinctions.

In metropolitan areas, on the other hand, we found both large numbers of banks and substantial differences between branch and unit banking areas. Therefore, it is conceivable that economically significant differences in the size distribution of firms exist. In investigating differences in concentration, however, we should keep in mind our hypothesis, stated above, on the number of markets in metropolitan areas under unit banking. Concentration under unit banking may be underestimated for the same reason that numbers of banks may be overestimated.

Data on the proportion of deposits held by the largest and two largest banks in over 200 metropolitan areas is assembled in Tables 22 and 23. We noted above that bank numbers increase with metropolitan area size. As we would expect, concentration ratios fall with increases in area size. However, it is important to point out that even the lowest ratios (in the largest areas) are relatively high. The largest banks hold, on average, about 30 percent of deposits, and the two largest hold over 50 percent.[39] The overall average for proportion of deposits held by the two largest banks is over 60 percent in all branch-law classifications. The ratios range from 78 percent in the 500,000–999,999 population class under statewide branching to 47 percent in the same class under unit banking.

[39] A somewhat lower ratio will be observed for unit banking areas in the 500,000 to 999,999 population class.

On the basis of these ratios, we would have to conclude that "interdependence" is recognized by the largest banks and that the very large number of small banks may choose to follow the leadership of the few large ones. Because of the relative abundance of banks in metropolitan areas as compared to non-metropolitan communities, we might have expected to find significantly lower concentration ratios in the former. But it would seem that concentration ratios in the metropolitan areas probably differ very little from those we might reasonably infer to exist in the smaller communities.

In view of the substantial differences in numbers of banks, the similarity in metropolitan area concentration ratios in the three branch-law classes of states is of interest. It is true that concentration ratios are consistently lower in unit banking areas. But despite a significant statistical difference, the economic difference would not appear to be very great even in the largest metropolitan areas where unit banking showed so many more banks than branch banking.[40]

To emphasize the high level of concentration that exists, regardless of branch banking laws, a comparison with classifications established by Bain for manufacturing is helpful.[41] These classifications are admittedly arbitrary, but they will provide a rough measuring rod for placing the concentration ratios in banking markets in perspective.

There are six classes ranging from very high concentration (I) to atomistic (VI). They can be described as follows:

[40] For example, an analysis of variance of concentration ratios for the two largest banks in branch banking metropolitan areas (statewide and limited) and unit bank areas with respective means of 67.8 percent and 60.3 percent resulted in $F^{1}_{208} = 9.78$ which is significant at less than the 1 percent level.

[41] Bain, *Industrial Organization*, pp. 121-133.

Table 22

Concentration Ratios in Standard Metropolitan Areas, 1962, By Type of Branching Law

Population Size of Standard Metropolitan Areas	Proportion of Deposits Held By					
	Largest Bank			Two Largest Banks		
	States With Statewide Branching	States With Limited Branching	Unit Banking States	States With Statewido Branching	States With Limited Branching	Unit Banking States
50,000 — 99,999	52.98	41.44	42.11	76.35	70.76	72.61
100,000 — 499,999	47.13	41.67	34.54	74.16	68.04	59.76
500,000 — 999,999	44.73	39.22	27.48	77.89	62.61	46.85
1,000,000 and over	37.34	32.00	27.97	60.46	51.98	50.20
All Standard Metropolitan Areas	46.15	40.10	34.81	73.51	65.38	60.28

Source: Board of Governors, Federal Reserve System.

Note: Means of ratios for individaul standard metropolitan areas. Metropolitan areas that overlap state lines have been classified in states in which they are principally located. Excludes District of Columbia. For states within each branch-law classification, see Appendix A.

Table 23

Concentration Ratios in Standard Metropolitan Areas, 1962; Branching and Unit Banking States

Population Size of Standard Metropolitan Areas	Proportion of Deposits Held by			
	Largest Bank		Two Largest Banks	
	Branch Banking States	Unit Banking States	Branch Banking States	Unit Banking States
50,000 — 99,999	46.57	42.11	73.24	72.61
100,000 — 499,999	43.33	34.54	69.91	59.76
500,000 — 999,999	41.13	27.48	67.92	46.85
1,000,000 and over	33.57	27.97	54.48	50.20
All Standard Metropolitan Areas	42.03	34.81	67.98	60.28

Source: Board of Governors, Federal Reserve System.

Note: Means of ratios for individual standard metropolitan areas. Metropolitan areas that overlap state lines have been classified in states in which they are principally located. Excludes District of Columbia. Branch Banking states include both statewide and limited branching states.

I. Very High Concentration

a. Few firms

A very high concentration of total output in the hands of the largest three or four firms and a small total number of firms. Included is an industry in which the first two firms account for 65 percent of output and only seven other firms actively participate. The top three firms are dominant; conscious interaction is at a maximum.

b. More numerous "fringe" sellers

A somewhat more numerous competitive fringe of small sellers characterizes this classification. Included is an industry in which the first two firms accounted for 58 percent of output and 17 other firms participate. "The similarities between classes I-a and I-b are probably more significant than their differences . . . class I-b (is) likely to have in the neighborhood of 20 to 40 sellers apiece as opposed to five or ten for class I-a. . . . There is some possibility, but not a probability, that the more numerous competitive fringe . . . will affect the character of competition somewhat."[42]

II. High Concentration

The first eight sellers control 85 or 90 percent of the market—the first four, from 65 to 75 percent. The competitive fringe of small sellers range from 20 or 30 to over 100. Included is an industry in which the first two sellers account for 47 percent, and the first four for 75 percent of the business. There are 144 firms in all. "In general, oligopolistic interdependence among the largest six or eight firms . . . must still be very strong."[43] But the members of the competitive fringe are not as completely restrained by this interdependence.

III. High-Moderate Concentration

The first eight sellers will ordinarily control roughly 70 to 85 per cent of total output; the first four, roughly 50 to 65 percent. There may be a large number of smaller firms. Included is an industry in which the first two firms account for 47.4 percent of the business, and the first four firms, 61.3 percent. There are 76 firms in all. A substantial degree of oligopolistic interdependence still exists among the large firms, but a significant share of the market is supplied by a substantial number of smaller firms.

IV. Low-Moderate Concentration

The first eight sellers ordinarily account for 45 to 70 percent of total output; the first four, for 35 to 50 percent. There is a large number of sellers in all, running from 200 up. Included is an industry in which the first two firms account for 20 percent of output and the first four for 38 percent. There are over 2,000 firms in all. Recognized interdependence still exists among the large sellers.

V. Low Concentration

Less than 35 percent of the market controlled by four firms and less than 45 percent by eight. A large number of small sellers are present. Included is an industry in which the first two firms account for 16 percent and the first four for 22 percent. There are over 1,000 firms in all. There is some oligopolistic interdependence among the top firms, but to a lesser degree than is true in IV.

VI. Atomistic

No seller is large enough to have a recognized interdependence with any other. Included is an industry in which the four largest sellers account for only 3 percent of the output and there are over 3,000 firms in all.

The lowest concentration ratio for the two largest banks is found in unit banking metropolitan areas with 500,000 to 999,999 people. (See Table 22.) The average number of banks in such areas is 39. (See Table 20.) It is reasonable to infer, on the basis of the limited information on size distribution at our disposal, that this degree of concentration would fall in Bain's Class II. The next lowest average concentration ratio is also found in unit banking states in areas with over 1,000,000 people. The proportion of deposits held by the largest two banks averages around 50 percent. (Table 22.) There are, on average, about 106 banks in all. (Table 20.) This degree of concentration would also appear to fall in Class II. All other degrees of concentration are higher

[42] *Ibid.*, pp. 216-227.

[43] *Ibid.*, p. 128.

Table 24

Concentration Ratios in Standard Metropolitan Areas, 1962, By Region and Type of Branching Law

Regions	Proportion of Deposits Held By					
	Largest			Two Largest Banks		
	States with Statewide Branching	States with Limited Branching	States with Unit Banking	States with Statewide Branching	States with Limited Branching	States with Unit Banking
New England	48.3	46.4	40.3	77.4	74.0	69.6
Middle Atlantic	38.0	32.0	—	59.4	53.6	—
Southeast	46.5	43.8	24.3	73.4	72.4	41.8
Middle West—North	—	41.4	31.5	—	64.9	54.2
Middle West—South	—	42.6	37.8	—	72.4	67.3
Western Plains	—	31.1	42.2	—	59.0	68.3
Far West	45.8	48.8	38.7	72.6	87.6	64.0

Source: Board of Governors, Federal Reserve System.

Note: Metropolitan areas that overlap state lines have been classified in states in which they are principally located. Excludes District of Columbia, Alaska and Hawaii. For states within each branch-law classification, see Appendix A. For states within each regional classification, see Appendix B. Some ratios are based on data for only one standard metropolitan area.

and would fall either in Class I or Class II.

Of course, we are dealing with average ratios, and in some metropolitan areas in each population-branch-law category, concentration may fall into Class III or even a lower class. There are more such cases under limited branching and unit banking than under statewide branch banking. Nevertheless, the outstanding characteristic of all these ratios is their high level.

In attempting to relate degrees of concentration with performance, Bain could find no significant difference between Class I and Class II cases. He could find a

> . . . critical degree of seller concentration above which industry profit rates on the average are higher, and below which on the average they are lower. . . . Wherever the line lies, there is a tentative indication that there may be in the economy two sorts of oligopolies: those sufficiently concentrated that monopolistic pricing policies usually are successful and produce substantial excess profits; and those sufficiently unconcentrated that a moderately close approximation to competitive pricing and profits is likely to ensue. In terms of the concentration classification . . . industries of "very high" and "high" seller concentration appear to have undesirable monopolistic tendencies; those of "low-moderate" and lesser concentrations seem to be relatively free of these tendencies; those of high moderate concentrations are somewhere on the border line.[44]

If we could interpret concentration ratios in banking in the same manner as Bain interpreted concentration in manufacturing, we would have to conclude that there is little difference of any economic significance between the ratios in unit and branch banking states.

The differences that do exist may be more apparent than real. For example, it may be more reasonable to compare

[44] *Ibid.*, pp. 413-414.

Table 25

Concentration Ratios in Standard Metropolitan Areas, 1962, by Population, Region and Type of Branching-Law

Population—Region	Proportion of Deposits Held by					
	Largest Bank			Two Largest Banks		
	States with Statewide Branching	States with Limited Branching	States with Unit Banking	States with Statewide Branching	States with Limited Branching	States with Unit Banking
50,000 — 99,999						
New England	47.2	44.3	40.3	71.3	70.6	69.6
Far West	70.4	—	40.6	91.5	—	71.4
100,000 — 499,999						
Southeast	46.5	43.2	25.4	73.4	72.5	45.4
Middle West—North	—	43.0	32.9	—	67.6	55.2
Far West	46.6	48.8	44.9	73.4	87.6	66.6
500,000 — 999,999						
Southeast	—	54.3	21.1	—	76.1	30.9
Middle West—South	—	35.7	33.3	—	64.3	58.3
Far West	44.2	—	22.8	74.6	—	44.3
1,000,000 and over						
Middle West—North	—	35.5	26.4	—	56.2	48.1

Source: Board of Governors, Federal Reserve System.

Note: Metropolitan areas that overlap state lines have been classified in states in which they are principally located. Excludes District of Columbia, Alaska and Hawaii. Only population-region classes in which comparisons of ratios are available are shown. For states within each branch-law classification, see Appendix A. For states within each regional classification, see Appendix B. Some ratios are based on data for only one standard metropolitan area.

average ratios for all branch banking areas with unit banking areas, rather than to keep statewide and limited branching areas separate. For, even where branching is limited, it is usually permitted throughout significant portions of metropolitan areas.[45] Concentration ratios for unit banking and branch banking metropolitan areas are compared in Table 23. This comparison tends further to reduce differences between most of the average ratios in the branch and unit categories.

A regional comparison of concentration ratios is provided in Table 24. In one of the seven regions, the Southeast, the average ratios in unit banking areas are relatively low. In one other region, the Western Plains, the ratios in unit banking areas are relatively high. In the remaining five areas, the unit banking ratios are lower than the branch banking ratios, but the level of the ratios and the amount of difference would not seem to warrant an economic distinction.

[45] The influence of limited branching is probably closer to that of a complete branching prohibition in non-metropolitan communities, in the sense that these communities are always small enough to be considered one market regardless of the branching law; and limited branching laws are frequently too limited to permit entry by established banks based in other areas.

A breakdown of concentration ratios by region within population groups in Table 25 provides only nine comparisons of branch banking and unit banking areas. This breakdown also suggests that concentration may be significantly lower in unit banking areas in the Southeast, and further suggests that this may also be the case in some areas in the Far West. But little difference can be observed elsewhere.

Thus it would appear that unit banking, while providing considerably more banks in metropolitan areas, may not really provide less powerful groups of large banks and more important groups of smaller banks.

Table 26

Number of De Novo Branches and Percent Representing New Entry, 1962

Location of Branch	Number of National Bank Branch Applications Approved	Percent of Approvals Representing New Entry
Same Town as Head Office	213	0
Different Town— Same County	195	83
Different County than Head Office	202	68
Total	610	49

Source: Office of Comptroller of the Currency.

E. Entry

New entry in a unit banking state can take place only by the establishment of a new bank. Under branch banking, new entry can take the form of a new bank charter or a *de novo* branch of an existing bank. Table 8 presents data on the changes in the banking structure brought about by formation of new banks and branches from 1953 to 1962. More new banks were chartered in unit banking states than where branching is allowed. This is to be expected since demand for new bank facilities in a unit banking state can only be met through organization of a new bank. Even in branch banking states, however, a substantial number of new banks has been established in recent years. In fact, in relation to the number of banks in existence in 1953, the branch banking states have seen the greatest amount of new bank entry. Because of the greater number of mergers in these states, however, the number of banks has declined, whereas the unit banking states have had an increase in the number of banks.

Since entry in branch banking states can take place through *de novo* branching, as well as through new charters, we must consider changes in the number of branches, as well as in the number of banks. Table 8 shows the opening of 2,087 *de novo* branches in statewide branching states and 3,289 *de novo* branches in limited branching states between 1953 and 1962. This meant an increase in banking offices of 58.5 percent under statewide branching laws and 34.9 percent in limited branching states, as compared with an increase of only 7.6 percent under unit banking.

However, not all *de novo* branches represent new entry. Some proportion of new branches are opened in communities in which the bank already has offices. In order to estimate the proportion of *de novo* branches that do represent new entry, we examined all national bank branch applications approved during 1962 to determine the location of the new branch in relation to other offices of the same bank. We found that approximately one-half of the 610 applications approved by the Comptroller of the Currency represented new entry (see Table 26). That

is, the branches approved were the first branches of the bank in that town.[46]

If we assume, then, that roughly one-half of *de novo* branches represent new entry, it appears that there have been more new entrants in the last decade in branch banking states than in unit banking states. In terms of numbers of new banks, the unit banking states had about four times as many new entrants from 1953 to 1962 as the statewide branching states. When account is taken of the new entry associated with branching, however, the statewide branching states had about twice as many new entries as the unit banking states. Even if only one-fourth of the *de novo* branches represented new entry (instead of one-half), the statewide branching states would have seen more new entrants than the unit banking states.

There are several reasons why this result should be expected. New entry may be easier under branch banking because there are some communities which can support a new branch but not a unit bank.[47] This is often attributed to lower costs of operation for branches as compared to unit banks. While such cost advantages may exist, the ability of a branch to operate successfully where a unit bank could not is not always dependent upon cost advantages. That is, even if a unit bank could be operated as efficiently as a branch of a large bank, the branch would be better suited to certain types of communities.

Many smaller communities or suburban areas present the potential for a very unbalanced banking business. Some wealthy suburban communities may generate a sizeable time deposit and personal checking account volume, but may have virtually no business loan demand. Other residential areas may provide substantial demand for instalment and mortgage loans, but inadequate deposit volume. The branch system provides for mobility of funds and can shift excess reserves for lending through other outlets of the system. Thus there are offices of some branch banks which have loan-to-deposit ratios of over 100 percent.

The unit banker must maintain some reasonable balance between his total loans and total deposits. There must also generally be some balance in the loan portfolio between real estate, consumer and commercial loans.[48] The unit bank must more-or-less match the supply of funds with the demand for funds in its community, although correspondent arrangements may provide some help to a bank in an unbalanced position. Thus entry to a potential unit banker looks attractive only in an area in which a sufficient volume and diversified composition of business appears available.

There are other reasons why entry by a new branch may be easier than entry

[46] It was not feasible to verify this for other years, but it is probable that in the earlier years a larger proportion of branches represented new entry than in 1962. Thus, the conclusion that about one-half of *de novo* branches represent new entry is a conservative one. It should be noted that towns within metropolitan areas are included in determining the number of new entries.

[47] In 1952, Comptroller of the Currency Preston Delano told the Joint Committee on The Economic Report that: "In many of these situations a new bank is not the answer for the amount of available business is inadequate to permit profitable operation, and an unprofitable bank cannot long retain competent employees, and hence it gradually deteriorates and becomes a hazard to the economic life of the community. On the other hand, these communities could, in a great number of instances, readily support a branch office of a sizeable institution." *Monetary Policy and the Management of the Public Debt*, 82nd Congress, 2nd Session, 1952, p. 927.

[48] There is, of course, room for a wide range of portfolio compositions, but generally a bank cannot operate safely with a loan/deposit ratio of 95 percent or operate profitably with a ratio of 5 percent. Neither would most bankers be comfortable with a loan portfolio consisting entirely of real estate or instalment loans.

by a new bank.[49] The new branch can draw upon a reservoir of trained management personnel developed by the large branch system. The number of applications for new bank charters rejected because of lack of management is an indication that this is a serious problem for the new unit bank. Even some branch bankers have indicated that this is the most serious limiting factor in their expansion plans. But where new entry is desired, a branch bank has an advantage in meeting the management needs. In addition to the long-run needs for management, the branch can benefit in its early months from the services of experienced, specialized personnel who can be transferred temporarily to the new branch.

Not only are the economic barriers to entry lower under branch banking, but, of even more importance, there are considerations which tend to make the regulatory barriers lower. We have noted that in banking the regulatory barriers are more important than the economic barriers. By law as well as by tradition, the bank chartering authorities must consider the effects of new entry on bank safety. If a proposed bank is seeking a charter to compete against an existing unit bank in a given community, there is, of course, some risk one bank or the other will be unable to operate profitably. Since the regulatory authorities want to avoid bank failures, in close cases the decision may be to stay on the safe side by refusing to charter the new bank.

If, on the other hand, the existing banking offices are branches, and the application is for a new branch, the regulatory authorities can safely take a more liberal and experimental attitude. A branch which turns out to be unprofitable can be closed with no loss to depositors. We may have communities with two or more branches which could safely support only one unit bank. Even if a new unit bank is proposed to compete with an existing branch, the regulatory authorities can evaluate the charter application with less concern for the effect of the new bank on the profitability or safety of existing banking offices. It is unlikely that a sizeable branch bank could fail because of losses incurred by any one of its branches.

Branch entry is not, however, always the best from the competitive viewpoint. Where the alternatives for a new banking office are a new bank or an additional branch for a bank which may already have offices in the area, competition would be benefited if a new bank were chartered. As the President's Committee on Financial Institutions pointed out:

> Where the alternative to a new branch of an existing institution is a new independent institution, competition might be greater if the branch application is denied and the charter application approved.[50]

This problem becomes more significant when it is realized that the initiative in meeting needs for additional facilities lies with private entrepreneurs rather than with the regulatory authorities. There may be a tendency for branch applications to arise before organizing groups for new banks can be formed. As Donald Jacobs hypothesizes:

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[49] For a discussion of these factors, see David A. Alhadeff, "Bank Mergers: Competition Versus Banking Factors," *Southern Economic Journal*, January 1963, p. 227.

[50] *Report of the Committee on Financial Institutions*, op. cit., p. 49. Note also the Commission on Money and Credit comment that "in some jurisdictions branches of local banks are favored over branches of outside units." (*Money and Credit*, The Report of the Commission on Money and Credit, Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1961, p. 165.) Competition would be more favorably affected if branches of banks not represented in the area were chosen.

. . . a branch might lose money for years but still be kept in operation if long-run prospects seemed favorable. When the area has grown sufficiently to support a unit bank, the branch is already in existence and incorporators may not be able to show need for a new bank.[51]

Based on the number of new banks established in recent years in branch banking states, however, these possible undesirable effects of branch banking on entry decisions seem to be more potential than real.[52] Branch banking gives the regulatory authorities a wider choice in considering needs for additional banking facilities. Because of the basis on which such decisions are made, it appears that the regulatory barriers to entry are lower under branch banking.

IV. *Summary and Conclusions*

This study analyzes the relationship between branch banking and those elements of banking structure that affect the level of competition in banking. These elements include the number of banks in relevant banking markets, the degree of concentration in banking markets and ease of entry into banking.

On a national basis, the number of banks in the United States is very large. On a state basis, the number seems to be associated with the status of branch banking. There are more banks in states that restrict branching, and the decline in the number of banks over the last decade has been greater in states with branch banking. This decline in the number of banks has slowed in recent years, due to a decrease in the number of mergers in branch banking states and an increase in new bank formations.

An important first step in the analysis of the effect of branch banking on bank numbers is to specify the banking market to be considered. Because commercial banks provide many different services and deal with customers of varying size and varying degrees of geographic mobility, there is a very large number of banking markets. Even at the state or regional level, the number of alternatives available to a bank customer is large. It is at the local level, however, that commercial banks are most vulnerable to the charge of monopoly. The bank customer who is not large enough or well known enough to seek banking relationships outside his local community is typically limited to a small number of competing banks.

It is of considerable importance to know how the number of banks operating in local banking markets is affected by branch banking. It has often been alleged that branch banking leads to smaller numbers of banks. This argument is based on data which show that there are fewer banks in branch banking states than in unit banking states. Since we are primarily interested in local markets, state data are not adequate.

We gathered data on the number of banks in each town in the United States that is not part of a metropolitan area. After taking account of population and geographical region we found the highest average number of banks in communities in branch banking states. The difference between branch banking and unit banking states was not large, but it was definite enough to refute the implication of

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[51] Donald Jacobs, "The Framework of Commercial Bank Regulation: An Appraisal," *The National Banking Review*, 1, March 1964, p. 353.

[52] It is important to recognize the connection between the condition of entry and branching policy. If the barriers to new entry are high and extensive branching is allowed, the tendency over time could be toward too few banks to assure sufficient competition. Since, however, the economic barriers to entry are not high, extension of branch banking can be accompanied by the increase in entry that may be necessary to maintain competition. For a discussion of this point, see, *ibid.*, p. 356.

overall state comparisons; i.e., that the extension of branch banking leads to smaller numbers of competing banks in local markets.

We next considered the number of banks in the standard metropolitan statistical areas. The smaller metropolitan areas had about the same number of banks in branch and unit banking states. In the larger metropolitan areas there were considerably more banks under unit banking than under branch banking. In fact, the numbers of banks diverge as the size of the area increases.

It is reasonable to view branch banking metropolitan areas as single banking markets, since the center city banks can establish branches throughout the area. Such is not the case where unit banking prevails. The divergence we have observed can be explained by the fact that in the larger areas we are comparing numbers in one banking market (under branch banking) with numbers in several markets (under unit banking).

Concentration in banking is high in most local markets. While concentration ratios are somewhat lower under unit banking, the differences do not appear to be very significant from an economic point of view. The principal difference occurs in the larger metropolitan areas where the unit banking states have lower concentration ratios. This finding is consistent with the above explanation that under unit banking a metropolitan area (particularly the very large metropolitan areas) may comprise several markets.

The competitiveness of the banking structure is affected not only by the number of existing banks but also by the possibility of entry by new firms. There are economic barriers to entry in every industry. These include such factors as product differentiation, economies of scale, and difficulties in obtaining certain factors of production such as management, capital, or labor. These barriers to entry are not high in the banking industry and seem to be lower under branch banking than under unit banking. The major barrier is the need for a prospective entrant to obtain approval from the regulatory authorities. A major concern of the chartering authorities is the maintenance of a sound banking system. Since new entry in a branch banking structure is less likely to lead to failure (either of existing firms or the new entrant), the authorities can safely adopt a more liberal policy on entry when branch banking is allowed. When branching as well as new charters are considered, available data suggest that there have been more new entrants in branch banking states in recent years than in unit banking states.

The main findings of the study are as follows:

1. Over the last decade branch banking has been associated with declining numbers of banks. There are far fewer banks in branch banking states than in unit banking states, but in recent years, the decline in bank numbers has slowed down despite continued rapid expansion of branch banking.

2. In non-metropolitan areas, on average, there are no fewer competitors in branch banking states than in unit banking states in the most relevant geographic banking markets, i.e., the local market.

3. In large metropolitan areas there are more banks in unit banking states than in branch banking states.

4. Concentration ratios are typically higher in metropolitan areas in branch banking states than they are in unit banking states. But these ratios are very high in all areas, and there is no evidence that the differences are economically significant.

5. Economic barriers to entry in banking are low in comparison to such barriers in manufacturing. They are probably

somewhat lower under branch banking than under unit banking.

6. Regulatory barriers to entry in banking have been more important than economic barriers in recent years. They can be lower under branch banking than under unit banking.

7. Our analysis suggests that neither in terms of number of competitors, nor concentration (measures of actual competition), nor in terms of the condition of entry (potential competition) have the structures of local banking markets been adversely affected by branch banking in the United States. The weight of evidence suggests that, to the contrary, market structures are adversely affected by restrictions on branch banking.

Appendix A

Classification of States by Branching Law

Statewide Branch Banking	Limited Branch Banking	Unit Banking
Alaska	Alabama	Arkansas
Arizona	Georgia	Colorado
California	Indiana	Florida
Connecticut	Kentucky	Illinois
Delaware	Louisiana	Iowa
Hawaii	Massachusetts	Kansas
Idaho	Michigan	Minnesota
Maine	Mississippi	Missouri
Maryland	New Jersey	Montana
Nevada	New Mexico	Nebraska
North Carolina	New York	New Hampshire
Oregon	Ohio	North Dakota
Rhode Island	Pennslyvania	Oklahoma
South Carolina	South Dakota	Texas
Utah	Tennessee	West Virginia
Vermont	Virginia	Wyoming
Washington	Wisconsin	

Note: This classification is the same as that used by the Federal Reserve (see **Federal Reserve Bulletin**, September 1963, p. 1195), with the exceptions of South Dakota, Wisconsin and Maine. Although branching is quite restricted in the first two states, there were 69 branches in South Dakota and 162 in Wisconsin at the end of 1962. Maine law generally restricts branching to contiguous counties but the small number of counties and the exceptions to the restrictions warrant including Maine in the statewide branching class.

Appendix B

Classification of States by Region

New England
- Maine
- New Hampshire
- Vermont
- Massachusetts
- Rhode Island
- Connecticut

Middle Atlantic
- New York
- New Jersey
- Pennsylvania
- Delaware
- Maryland

South East
- Virginia
- West Virginia
- North Carolina
- South Carolina
- Georgia
- Florida
- Alabama

Middle West—North
- Ohio
- Indiana
- Illinois
- Michigan
- Wisconsin
- Minnesota
- Iowa
- Missouri

Middle West—South
- Mississippi
- Louisiana
- Texas
- Arkansas
- Kentucky
- Tennessee
- Oklahoma

Western Plains
- North Dakota
- South Dakota
- Nebraska
- Kansas

Far West
- Washington
- Oregon
- California
- Idaho
- Utah
- Nevada
- Arizona
- Montana
- Wyoming
- Colorado
- New Mexico

Note: For a discussion of the basis of classifications, see pp. 323, 325 and footnote 35.

► DONALD JACOBS

The Framework of Commercial Bank Regulation: An Appraisal

In the hundred years since the passage of the National Currency Act substantial changes have occurred in the regulatory atmosphere surrounding commercial banking. On the whole the movement has been toward increased regulation, with the greatest impetus coming during periods of crisis. At the present time, changes in the bank regulatory apparatus and process are widely discussed, although no crisis has occurred since the depression of the 1930's. The absence of crisis should permit a more judicious appraisal of proposed changes in the regulatory structure.

In any economy some industry structure will evolve. Wherever consideration is given to any form of public control or public action, the issue arises as to whether the social benefits will exceed the social cost. This paper is concerned with regulations aimed at the operations of commercial banks, which, like other private business concerns in a free enterprise economy, are profit motivated. Regulations designed primarily to facilitate monetary policy are excluded from consideration. Such regulations are promulgated on a basis significantly different from the operational regulations under consideration.[1]

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[1] The mechanics of bank supervision are also omitted from this discussion. Admittedly, the supervisory apparatus for administering regulation is an important element in an evaluation of the framework. But that analysis is beyond the scope of this paper. For a discussion of the interaction between bank supervision and monetary policy, see G. L. Bach, "Bank Supervision, Monetary Policy, and Government Reorganization," *Journal of Finance, IV*, December 1949.

In the first section of this paper a prototype of a minimally regulated system is developed. In the second section the rationale for regulation and the present regulatory structure are described. In the third section the current structure is compared to the minimally regulated system in an attempt to determine whether any parts of the present system are unnecessary. Branching restrictions, which are excluded from the second and third sections, are discussed and evaluated in the fourth section. The concluding section analyzes prospects for regulatory change.

I. *The Framework of a Minimally Regulated Banking System*

The establishment of a perfectly competitive banking industry would require free entry into banking, including the establishment of branches as desired by the firms in the industry. No territorial limitations would be placed on branches. No control would be exercised over portfolio decisions, or bank operations. No overt capital requirements would be established.

If there are substantial economies of scale in banking, a competitive structure would not be viable, or it would be inefficient. Either a race for optimal size would result in some number of survivors less than that necessary to maintain competition, or the firms would engage in some form of collusion out of fear of the results of "cutthroat competition." [2] Neither result would lead to the "socially best" price.

Two studies bearing on economies of scale in banking have recently been published.[3] Both, utilizing multiple regression techniques, concluded that costs per dollar of assets fell as banks increased in size. Both of these important studies, however, assume that banks of all sizes service the same types of customers and make the same types of loans. Large banks, however, produce a substantially different product than do small banks. For example, many large banks have extensive tax departments and foreign departments, and supply correspondent services to small banks. Federal Reserve surveys show that large banks handle deposits and loans of a much greater average size than do small banks. Since the business of a small bank is different from the business of a large bank, the regression studies do not shed light on the question of economies of scale. The question of economies of scale is not whether large banks conduct their business more cheaply than small banks conduct theirs, but rather whether large banks conduct the business handled by small banks more economically than do the small banks. Therefore, the answer to this essential question has not been given by these studies.

A recent study of banking in New England, using accounting data for unit banks, and for branch banks and unit banks which had been merged and converted to branches, concluded that for very small operations branches and unit banks have about equal costs, but, "in the case of moderate size banking offices, a branch can be operated at a somewhat lower cost than a unit bank, but the amount of saving is not as great as many proponents of branch banking have as-

[2] This statement is predicated purely on economic theory. If it is assumed that antitrust policies are applied, the results will be less certain, since they will be determined by the form of the legislation and the manner in which it is enforced.

[3] Lyle E. Gramley, "A Study of Scale Economies in Banking," Federal Reserve Bank of Kansas City, November 1962; and Irving Schweiger and John S. McGee, "Chicago Banking," *The Journal of Business*, XXXIV, July 1961, pp. 203-366.

sumed." [4] This study was primarily aimed at comparing the operation of branch and unit bank structures; it does, however, offer suggestive evidence on economies of scale in banking.

One observes that in England and Canada, where nationwide branch banking is allowed, the commercial banking system is dominated by a few nationwide branch systems. This evidence might be construed as proof of the existence of economies of scale in banking, but it is certainly not conclusive. It is quite possible that inadequate monetary policy and the absence of deposit insurance were more important than economies of scale in causing the emergence of a small number of branch systems in these countries.

Another piece of evidence which may be taken to indicate economies of scale in banking in the United States is the wave of bank mergers in the period since the end of World War II. But other factors, such as management succession problems and the imperfect market for bank securities, are often said to be the overriding motive for recent bank mergers. Also, the possibility of lessened competition as a motive for mergers should not be overlooked. This is especially significant in view of the restrictions on new bank entry.

If banking is not characterized by declining costs as the scale of enterprise increases, it is possible, in theory, to maintain an unregulated competitive banking structure which will provide an efficient amount and allocation of resources devoted to banking services. However, free entry into the banking business and the abolishment of all regulations would not, alone, maintain the viability of such a system. Depositors are not in a position to evaluate the risk of loss of deposits as a result of the lack of capital or the loss potential of a bank. In the absence of deposit insurance, a market structure with large numbers of banks could not be maintained, because depositors would seek out the protection of prestigious banks. A new, unknown entrant would have a difficult time.[5] An institution such as the Federal Deposit Insurance Corporation is thus needed for the maintenance of a large number of banking institutions.

With deposit insurance, the majority of depositors can be largely indifferent to the strength of a bank's capital and management. However, without some controls, under deposit insurance a strong incentive would exist for persons with high risk preferences to go into the banking business. As bankers, they could operate with very high leverage, that is, with low capital-to-asset ratios. With a small amount of capital they could undertake high risks and, therefore, high-yield lending opportunities. If the loans paid off, they would receive handsome rewards. If losses occurred, they would lose the small amount of capital invested; but most of the loss would be borne by the insuring agency.

At present, insured commercial banks pay to the Federal Deposit Insurance Corporation a flat fee based on deposits. If this method of charge were used in the

[4] Paul M. Horvitz, *Concentration and Competition in New England Banking*, Research Report to Federal Reserve Bank of Boston, #2, 1958, pp. 119-128.

[5] It is often said that smaller and/or newer firms in any industry are in some degree at a competitive disadvantage as compared with larger and/or established firms in the industry. Market preferences built through time and cost of capital are usually mentioned as the major factors underlying this competitive disadvantage. This, however, does not preclude the establishment of a competitive industry. The validity of the need for an insuring agency to establish a competitive banking structure rests on a belief that there is much greater competitive maneuverability in the production and sale of most other products, compared to competition to attract deposits.

context of a system of free entry and no regulation or capital requirements, a bank with low capital and a high portfolio risk could be given a chance of gain without commensurate risk. Under such a system the insuring agency would have to be given some power to control risk exposure of its reserves, a power which at a minimum would require control over ratios of capital to risk for insurance eligibility.[6]

To summarize, if substantial economies of scale exist, a competitive banking system could not be established without regulation. Even if economies of scale do not preclude an unregulated system, the nature of the products and services performed by banks requires deposit insurance, in order that banks of various sizes may compete effectively in the same market. A viable banking system with a minimum amount of regulation would necessarily include some portfolio and/or capital-on-entry regulations to protect the solvency of the insurance fund.

It should be pointed out that at the present time the regulatory authorities do not consider the solvency of the insurance fund to be a major justification for these regulations. The regulations deemed necessary for the minimally regulated system now exist. Should the rationale presently used to justify these regulations be abandoned, the regulations would either be kept in use to protect the insurance fund or one of the consequences outlined above would occur.

II. *The Present Framework of Regulation*

The underlying economic reasons for regulation of banks are twofold: to protect depositors; and to insure the economic well-being of the commercial banking system, and hence of the economy at large.[7] Both of these basic purposes are, of course, closely intertwined.

Large depositors may be able to assess the adequacy of the protection offered by the equity of a bank. Small and medium size depositors ought not to be under the dictum of "investor beware." They do not generally have the time or the ability to assess adequately the risk of loss in banks of varying financial strength. Jeopardy of loss would cause small depositors to seek alternative places to hold their funds, an activity which would entail a large social loss.

A healthy commercial banking system is necessary for a well functioning economy. Commercial banks are the major medium through which money transfers are made. Such an agency is needed to facilitate the rapid, low-cost transfer of money. Commercial banks hold a large part of the liquidity of the nation. Should the banking system fail or falter, these liquid assets would be wiped out or impaired. Also, banks, in conjunction with other financial agencies, play an important role in the financial markets. Commercial lending to small and medium-sized firms is often considered to be their most important function. Banks are not alone in this area of lending activity, but they occupy a central and predominant position.

The economic importance of a healthy banking system and the need to protect depositor funds was vividly demonstrated by the events of the early 1930's. Deposi-

[6] Probably the most elegant method for handling this problem in a free enterpise economy would be to make the insurance fee a function of the ratio of capital relative to risk exposure in the asset portfolio. This would make the basic decisions on capital structure, cost of capital, and capital budgeting the same in banking as it is in other industries.

[7] These reasons do not encompass restrictions on branching, which are discussed in Section IV. Moreover, the emphasis here is on the word "economic." Many presently existing regulations and supervisory controls are aimed at non-economic problems. For example, restrictions against self-dealing on the part of bank management is not dictated by economics, but rather by considerations of "equity."

tor runs on banks and inadequate aid from the Federal Reserve to bolster bank liquidity needs led to a large decline in the money supply and much hoarding of cash reserves.

From the end of June 1929, to the end of June 1933, the number of commercial banks declined 43%, from 24,970 to 14,208; total deposits declined 35%, from $49.4 billion to $32.1 billion; and capital accounts declined from $8.8 billion to $6.3 billion, or 28%.[8] Serious concern arose over the ability of the commercial banking industry to perform efficiently, or even survive.

Rebuilding the capital position of commercial banks and ending the danger of rapid deposit withdrawals were the two major problems facing the banking authorities. However, the belief that "overbanking" was a major contributing factor to the serious plight of the commercial banking industry provoked regulations beyond those needed to deal with the capital and deposit withdrawal problems. Banking had been a heavily regulated industry even in the 1920's, but the regulatory apparatus was much expanded during the 1930's.

To deal with the problem of bank runs, a federal program of deposit insurance was instituted.[9] The introduction of deposit insurance has had the desired effect. Of course, this does not mean that all possibility of large scale deposit runs has been eliminated; but in the 30 year period since the introduction of deposit insurance this phenomenon has been virtually non-existent.

Increasing the capital of banks is largely a problem of profitability, for if banks are profitable they can both sell stock when necessary and increase capital through earnings retention. Bank profitability is largely a function of the demand for funds. But because the demand for bank credit it relatively inelastic with respect to interest, when interest rates are low, bank profitability is low, and when interest rates are high, bank profitability is high. It must be remembered that during the 1930's low interest rates prevailed. Therefore, under normal circumstances, low bank profitability was to be expected. This fact heightened the problem of rebuilding bank capital accounts.

Many regulations affect bank profitability, but most of these regulations also have other effects. Many existing regulations imposed originally as an aid to profitability are now retained and thought necessary to serve other regulatory purposes.

For convenience of discussion the existing regulatory framework may be divided into two broad categories: regulations governing entry; and regulations concerned with managing the operation of the going concern. The latter category may be further divided into two major parts: regulations influencing portfolio management; and regulations dealing with deposit acquisition.

Let us first consider the regulations governing entry. To start a bank, a charter must be obtained. These are coveted documents. Under the dual banking system that has evolved in the United States, bank charters are granted by authorities in each of the 50 states; in addition, the Comptroller of the Currency issues charters for national banks.

The 51 bank chartering authorities operate with varying regulations and use different tests and procedures in determining whether a charter is to be issued. For example, before a charter is issued for a new national bank, the Comptroller of the Currency conducts an exhaustive

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[8] *All Bank Statistics, United States 1896-1955*, Board of Governors of the Federal Reserve System, Washington, D.C.: page 37.

[9] The history of state insurance plans and proposals for federal insurance are described and analyzed in the 1950, 1952 and 1953 *Annual Report*, Federal Deposit Insurance Corporation, Washington, D.C.

investigation into the background and financial position of the organizers of the proposed bank, the present banking facilities available to potential customers of the proposed bank, and the probable public need and acceptance of a new banking institution in the area. A bank examiner from the Comptroller's staff is charged with investigating in the locale of the proposed bank, and with drawing specific conclusions about the following factors: ". . . the potential of management, earning and deposit forecasts, public need, capital adequacy, location and the general competitive climate in which the new bank would exist." The Comptroller states that this last factor, competitive climate, is given much weight in deciding whether a charter will be issued.[10] Other chartering authorities follow similar investigatory procedures, but most probably use a much less elaborate process. The weight given to the various factors also varies among chartering authorities.

Restriction of entry can be assumed to affect commercial bank profitability. The fewer new entrants in any given area, other things being equal, the higher will be the income of existing banks. Tightening of entry restrictions in the 1930's was probably strongly influenced by the desire to raise profitability. In recent years, with the rise in bank earnings, this motive has substantially lessened, and other effects deemed desirable by the regulatory authorities have gained in relative importance. The various investigations carried out by the Comptrollers' office and other bank chartering authorities suggest a concern that a new bank might lessen, rather than increase, competition; or that competition might be intensified to the point where an existing bank would fail; or that the quality of bank assets in the area would deteriorate because of increased competition.

In competing for deposits, banks operate subject to a ceiling on rates they may pay on time and savings accounts, and they are prohibited from paying interest on demand deposits. Restriction of interest payments on deposits was meant largely to lower operating costs and so to increase profiitability. The prohibition of interest payments on demand deposits does have this effect. Even though services are given in lieu of interest, some depositors do not use all of the value of the imputed interest.

The connection between costs and profits is not at all clear in the case of the ceiling on time and savings deposits. The ceiling lowers the interest cost on whatever deposits there are in banks. Strong competition from other financial intermediaries uninhibited by interest ceilings, however, may cause commercial banks to lose substantial amounts of potential deposits. Thus, the effect on profits depends upon the marginal cost of acquiring additional funds and the marginal revenue to be gained from the use of these funds.

In addition to their effect on profitability, restrictions on interest payments are believed to affect portfolio decisions. Higher interest costs, some authorities believe, prod bankers into making riskier, higher-yield loans and investments in order to offset the higher costs. Thus, this set of regulations is partly aimed at reducing the risk of a deterioration in the quality of bank assets.

Bank investment and loan portfolio decisions are directly circumscribed by a large number of regulations. Among the more important of these are the regulations on the maximum loan to any one borrower relative to bank capital, the prohibition of equity investments, and the restrictions on the amount which may be

[10] Conflict of Federal & State Banking Laws, Hearings Before Committee on Banking & Currency, statement by James J. Saxon, Comptroller of the Curency, May 3, 1963. Pages 281-330 of these hearings contain a description of the procedures and policies folowed by the Comptroller with regard to bank branching and chartering.

invested in mortgages and other types of long-term debt instruments. Moreover, the banking acts of the 1930's substantially reduced the power of banks to operate in the capital markets. The broad prohibition on investment banking functions previously performed by commercial banks is an important aspect of this reduction in operating discretion.

It is difficult to rationalize clearly the purposes of individual portfolio restrictions. In part they contain vestiges of supervisory concern over bank liquidity; in part they are aimed at controlling the quality of assets held; in part, also, there is some belief that they aid profitability. In general, these regulations act to lower risk exposure and so reduce losses on loans and investments.

In a free enterprise economy, risk taking must be adequately compensated or capital will not be channeled into risky endeavors. There is no reason to believe that bankers are endowed with below average business ability. Hence, restricting the freedom of bankers to undertake risk should cause both a reduction in average income after provision for losses, and also a reduction in the variability of income. The main effect of portfolio regulations, therefore, is to reduce bank failures, but at the expense of lower average bank profits.

To summarize, there is a clear rationale for regulating commercial banking. But the present structure of regulation is also a reflection of the problems encountered by the banking system during the 1930's. The scope of competition has been reduced. This has had an uncertain overall effect on bank income. Some regulations tend to increase income while others tend to lower income. The only valid generalization is that the possibility of bank failure has been substantially reduced and is much lower than would be true in a minimally regulated system.

III. *An Evaluation of the Regulatory Framework*

Public regulation may be justified in a free enterprise economy either because competition cannot be sustained where costs decline as the size of firms increases, or because goals other than economic efficiency are deemed more important. In appraising the present regulatory framework two important questions must be answered. First, are the objectives underlying these regulations desirable? Second, if the objectives are desirable, are the present regulations necessary to bring them about? There is almost universal acceptance of the objectives of depositor protection and the maintenance of the economic well-being of the banking industry. This section is therefore devoted to an analysis of the need for the existing structure of controls.

Even in a minimally regulated system, deposit insurance would be needed to help equalize the ability of new and/or small banks to compete with large and/or established banks for deposits, and thus maintain a sufficient number of banking units to keep the industry competitive. Moreover, some portfolio and capital regulations would be necessary in order to protect the insurance fund, if a flat insurance fee on deposits were used. Beyond that, the major question is whether the present structure of controls is needed, in order to prevent a greater volume of bank failures than is socially acceptable. To rationalize fully the present regulatory system, one must assume that banking is inherently an extremely competitive business, and that bankers, if allowed to compete freely, would operate at prices which would cause many bank failures.

An important element in the present regulatory rationale is the belief that a state of "overbanking" developed during the 1920's, and that this led to a deterioration in the quality of bank assets. The quality of credit is an illusive concept. Measured *ex-post* by losses on loans ne-

gotiated during the latter part of the 1920's, there is no doubt that credit quality deteriorated. The quality of credit is, however, largely determined by ensuing business conditions. Had business conditions remained stable after 1929, and had banks not been subjected to forced liquidation because of deposit runs, bank losses would certainly have been substantially less. A large part of the problem in which the commercial banking industry found itself in the 1930's was a result of large scale deposit runs on banks. If banks had been supplied with the liquidity to meet the deposit drains, bank failures would surely have been very drastically reduced. The question as to whether credit quality, measured *ex-ante*, did in fact deteriorate has not really been answered.

Portfolio regulations aimed at reducing the income variability of commercial banks and restrictions on bank entry are sometimes defended on the ground that they reduce resource waste which would occur because of the entry and destruction of firms which find that they cannot operate successfully. It has been argued that bank failure is socially more costly than is the failure of other types of enterprise. The failure of a bank causes losses to depositors as well as to stockholders. It makes the depositor distrust banks and therefore impairs the check mechanism. This depositor mistrust is transmitted and felt by all banks in the community. In addition, rapid turnover of operating banks, it is believed, would cause costly disruptions of established borrowing channels.

This line of reasoning had much to commend it in the past. Failure of a bank in a community often resulted in heavy deposit withdrawals at other nearby banks. However, the introduction and success of deposit insurance has greatly reduced, if not entirely eradicated, the transmitted effects of bank failure. With deposit insurance the effect of failure in banking is much

TABLE 1

Annual Rates of Return on Common Equity In Commercial Banking, Privately Owned Utilities and All Manufacturing Corporations, 1947-1961.

Year	Commercial Banking [1]	Electric Utilities [2]	All Manufacturing [3]
1947	8.0	10.3	15.6
1948	7.3	9.9	16.1
1949	7.8	10.6	11.7
1950	8.3	10.6	15.4
1951	7.6	9.6	12.4
1952	7.9	10.3	10.3
1953	7.7	10.3	10.5
1954	9.1	10.6	9.9
1955	7.6	11.0	12.6
1956	7.5	11.1	12.3
1957	8.0	11.0	11.0
1958	9.3	11.0	8.6
1959	7.7	11.2	10.4
1960	9.6	11.3	9.2
1961	9.0	11.2	8.8

Source: 1. **Annual Reports,** Federal Deposit Insurance Corporation.
2. **Statistics of Electric Utilities in the United States,** Privately Owned, 1961, Federal Power Commission, Washington, D. C.
3. **Quarterly Financial Report,** for manufacturing companies, Federal Trade Commission, and Securities and Exchange Commission, Washington, D. C.

the same as in other industries. Resource loss due to incorrect forecasts or changed consumer tastes is generally experienced in competitive industries. Knowledge of the future is never perfect. The usual evaluation is that the benefits brought about by the competitive drive in the industry more than compensates for the losses.

An answer to the problem of the disruption of borrowing relationships between banks and businesses is less certain. The question of whether it is socially more costly to replace suppliers of bank funds after failure of the bank with which relations are established than it is to replace suppliers of other factors of production after a failure of an established supplier is an empirical question. The answer is not certain.

A further major question to be faced, if a large part of existing regulations were dropped, is: Would banking attract sufficient capital to perform adequately its

necessary functions? Annual rates of return to equity in commercial banks, private electric utilities, and all manufacturing corporations for the period 1947-1961 are shown in Table 1. Until 1958, the return to bank capital averaged just under 8 percent; but from 1958 to 1961 the return to bank capital rose to an average of almost 9 percent. Until 1958, utility earnings averaged 2.5 percent more than bank earnings; since 1958, increased bank earnings have reduced the differential. Earnings on capital in manufacturing were substantially above returns on banking in the 1950's; however, manufacturing profitability has fallen in recent years and in the last four years has been on a par with returns in banking.

These aggregate data, however, are not wholly reliable for our purpose. The following factors distort the comparisons: accelerated depreciation taken by utilities and manufacturing companies; valuation reserves set-up by banks; and the general inflationary conditions during many of the years covered. Nonetheless, it seems probable that, even considering the relative safety of investment in bank capital, bank profits have not been out of line with profits in other private businesses. These data are not conclusive, since it is possible that profits above the competitive level exist in banking, but are taken "in the quiet life."

Restrictions on entry, the prohibition and ceiling on interest payments on deposits, and other regulations which affect profitability have certainly not led to extraordinary rates of return on capital in banking. The greater competition which would occur if entry became freer and interest restrictions were rescinded would most certainly lower rates of return and thus intensify the problems of the bank supervisory authorities in coercing banks to maintain adequate capital accounts.

It is impossible to predict how many new banks would be formed if barriers to entry were dropped, or what the long run effect on profits would be if interest restrictions were removed. The data on relative profitability of banks and other businesses, however, suggest that there would not be a substantial rush of new firms into banking. Moreover, banks would enter in the areas where opportunities are greatest, which is exactly where new entry is most desirable. Leaving aside questions of fiduciary responsibility and the character of new applicants for bank charters, which ought to continue to be guarded, we can summarize the economics of entry as follows: If the rate of return is low in an area, no new bank will seek to enter. Restrictions on entry in these cases are redundant. In areas where the rate of return on capital is high, entry restrictions may impede the free flow of new capital. At best, the economic effects of entry restrictions are redundant; at worst, they are harmful.

An additional difficulty in assessing the profitability of an unregulated commercial banking system is to gauge the depressing effect of the present portfolio restrictions. It is difficult to determine how much income is foregone because of these restrictions, but there is much room for attracting business away from other financial intermediaries. With a heightened competitive stature the aggregate income of commercial banks could probably increase substantially.

Regulations which inhibit competition and therefore raise bank profitability could be defended on the ground that a well functioning healthy commercial banking system provides large external benefits. If this were true, the competitive pricing system would not provide the socially desirable quantity of banking services. This same argument of external benefits can be made for almost any basic industry. It is difficult to judge whether or not banking provides a markedly larger amount of external economies than other industries. However, if it is desirable to increase the quantity of capital in banking because of external benefits, above that

which would be provided in a minimally regulated system, bank profitability could be changed without affecting bank market conditions.

In large measure, the overall profitability of the commercial banking industry is determined by the actions of the monetary authorities. Federal Reserve monetary policy is dictated by business conditions, but the actual monetary tool used to carry out policy is determined by the Federal Reserve. Raising reserve requirements and selling bonds through open market operations may have similar monetary effects, but different effects on profitability. Higher reserve requirements would have a more adverse effect on bank profits than would the sale of bonds; and, conversely, lower reserve requirements would have a more favorable effect on bank profits than would Federal Reserve purchases of bonds. It is possible, therefore, substantially to increase the profitability of the commercial banking system through appropriate Federal Reserve action. The socially desirable quantity of capital could be attracted to banking without the need for regulations which tend to inhibit competition.

It should be emphasized that this suggestion does not call for any interference with the conduct of monetary policy. The monetary effect is the same; only the tool is changed. Moreover, great caution should be exercised not to assure profits to any level of capital investment in banking.

To summarize, assuming a presumption in favor of minimum regulation in a free enterprise economy, and given the belief that it is desirable to regulate banking to the extent necessary to achieve depositor protection and to guarantee a healthy, viable banking system, there is reason to believe that the present regulatory structure is more restrictive than necessary. The indicated direction of change should be toward easing the regulatory environment in which banks operate.

IV. *Regulation of Branching*

The rationale for bank regulation discussed above does not explain the restrictions imposed on branching. This part of the regulatory apparatus dates back to the demise of the Second Bank of the United States. The closing of the Second Bank of the United States has been attributed largely to rivalries between states and regions. Western states were fearful that Eastern interests would control the Bank and that funds would flow to the large financial centers of the East. Prohibition of branching across state lines, it was assumed, would keep control of the financial resources of the state in local hands, and would speed up development.

Certainly this prohibition had the effect of maintaining local control, but it may have slowed growth and development of the Western states. These states were large importers of capital, and the prohibition of interstate branching probably impeded the free movement of capital. Through time, however, with the relative increase in the wealth of the West, the development of a national capital market and the extensive correspondent relationships that developed between banks in all parts of the country, the adverse significance of this restriction has been diminished, if not eliminated.

Branching restrictions within states were motivated by many of the same fears that motivated interstate branching restrictions. The development of large accumulations of capital in a few hands was generally feared. Moreover, the rural areas tended to mistrust urban interests.

At the present time, a widely diverse set of regulations formulated by each state are binding upon both state and national banks domiciled within the state. A bank may not branch over state lines.[11]

[11] The bank holding company could be considered not to conform to this pattern. But banks controlled by holding companies are individually organized, capitalized and staffed with officers.

As shown in Table 2, sixteen states permit statewide branching; twenty states permit branch banking within limited areas; eleven states prohibit branching entirely; and three states have no legislation regarding branch banking.

The desirability of branching restrictions depends on the costs relative to the benefits which accrue from the restriction. The potential cost would be the resource waste resulting from the loss of size efficiency, if economies of scale do exist. The potential benefits would be the benefits derived from local control over banking facilities, and the possibility of greater availability and lower cost of bank credit to small and medium size businesses.

In appraising branching restrictions under the present regulatory framework, additional complicating factors must be considered. The lifting of restrictions on branching would not change the existing restrictions on entry into banking. The data in column 1 through 4 in Table 2 show changes in the number of banks from 1946 through 1961, grouped by the degree of branching restrictions. These data show that the wider the branching privilege, the greater is the reduction in the number of banks. This relationship results from two factors: the greater number of mergers, and the lower number of new bank formations, where branching restrictions are less severe.

The requirements for starting a new bank are more difficult to meet where branch banking is permitted. Opening a branch in a new location does not normally require the parent bank to acquire additional capital. Even considering only out-of-pocket expenses, a branch might lose money for years but still be kept in operation if long-run prospects seemed favorable. When the area has grown sufficiently to support a unit bank, the branch is already in existence and incorporators may not be able to show need for a new bank. The impact of these facts on new bank formations is shown by the data in column 5 of Table 2. There is little doubt that the number of new banks is affected by branch restrictions, and that, all other things being equal, tightening branching restrictions leads to a larger number of new bank formations.

The incentive to merge is much greater where branching is permitted. Where branches are allowed, a merger usually results in an additional branch. In a unit banking state, on the other hand, a merger between two banks requires the closing of one of the banks. Customers of the closed bank might find it desirable to transfer their accounts to another more convenient bank. The surviving merged bank can, therefore, expect to lose a sizable portion of the deposits of the merged institutions.[12] Thus the amount that can be paid profitably for a bank in a merger transaction under branching restrictions is smaller, because of the greater expected loss of deposits, and because after the merger no banking value remains in the second location.

Wider geographic branching privileges lead to a smaller number of banks; but, as can be seen from columns 7, 8 and 9 of Table 2, the opposite relationship holds with regard to the number of offices. The wider the branching privilege, the greater the number of banking offices. It is not

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Legally and, it is argued by students of bank holding companies, operationally, these banks do not operate as one branch system. See Gerald C. Fischer, *Bank Holding Companies*, New York: Columbia University Press, 1961.

[12] Mergers, where the absorbed bank becomes a branch, may also lead to deposit loss. When two large banks are merged, some duplicated lines of credit of large concerns and duplicated correspondent balances might be lost. When a large and small bank or two small banks are merged, some customers may not want to deal with the resulting bank and branch. This type of business loss could occur in any merger. But the location problem exists only in unit bank states.

TABLE 2

Changes in the Number of Commercial Banks, Banking Offices and New Bank Formations, by States Grouped by Branching Restrictions, 1946 and 1961*

States Permitting Statewide Branch Banking	(1) Number of Banks 1946	(2) Number of Banks 1961	(3) Absolute Change in Number of Banks 1946-61	(4) Percent Change in Number of Banks 1946-61	(5) Total New Bank Formations 1946-61	(6) Number of Banking Offices 1946	(7) Number of Banking Offices 1961	(8) Absolute Change in Number of Banking Offices 1946-61	(9) Percent Change in Number of Banking Offices 1946-61
Arizona	10	11	+ 1	+10.0	4	48	194	146	+304.2
California	207	117	− 90	−43.4	88	1065	1941	876	+ 82.3
Connecticut	123	63	− 60	−48.8	6	213	283	70	+ 32.9
Delaware	39	20	− 19	−48.7	0	56	75	19	+ 33.3
Idaho	47	32	− 15	−32.1	13	91	120	29	+ 31.9
Louisiana	155	192	+ 37	+23.9	43	218	374	156	+ 71.6
Maine	64	46	− 18	−28.1	3	165	184	19	+ 11.5
Maryland	170	132	− 38	−22.4	9	291	385	94	+ 32.3
Nevada	8	7	− 1	−12.5	2	24	50	26	+108.3
North Carolina	227	163	− 64	−28.2	5	389	702	313	+ 80.5
Oregon	70	48	− 22	−31.4	28	146	252	106	+ 72.6
Rhode Island	23	9	− 14	−60.9	0	73	92	19	+ 26.0
South Carolina	149	144	− 5	− 3.4	28	148	302	154	+104.1
South Dakota	169	174	+ 5	+ 2.9	14	213	237	24	+ 11.3
Vermont	72	52	− 20	−27.8	0	98	84	−14	− 14.3
Washington	122	89	− 33	−27.0	42	240	381	141	+ 58.8
States Permitting Branch Banking Within Limited Areas									
Alabama	219	238	+ 19	+ 8.6	39	241	330	89	+ 36.9
Arkansas	219	237	+ 18	+ 8.2	28	238	288	50	+ 21.0
Georgia	316	420	+104	+32.9	82	345	482	137	+ 39.7
Indiana	488	441	− 47	− 9.7	19	568	763	195	+ 34.3
Iowa	649	673	+ 24	+ 3.7	41	813	851	38	+ 4.7
Kentucky	390	351	− 39	−10.0	17	421	510	89	+ 22.1
Massachusetts	187	166	− 21	−11.2	29	558	573	15	+ 2.7
Michigan	434	373	− 61	−14.1	42	630	993	363	+ 57.6
Mississippi	203	193	− 10	− 4.9	9	255	335	80	+ 31.4
New Jersey	348	244	−104	−29.9	14	509	696	187	+ 36.7
New Mexico	44	57	+ 13	+29.5	17	50	114	64	+128.0
New York	672	388	−284	−42.3	12	1560	1842	282	+ 18.1
North Dakota	151	156	+ 5	+ 3.3	6	175	186	11	+ 6.3
Ohio	674	576	− 98	−14.6	26	842	1257	415	+ 49.3
Pennsylvania	1016	671	−345	−34.0	14	1145	1320	175	+ 15.3
Tennessee	294	294	0	0	17	358	526	168	+ 46.9
Utah	59	50	− 9	−15.3	12	71	127	56	+ 78.9
Virginia	315	302	− 13	− 4.1	27	392	606	214	+ 54.6
Alaska	19	14	− 5	−26.3	9	18	41	23	+127.8
Hawaii	9	7	− 2	−22.2	4	53	103	50	+ 94.3

TABLE 2 (Continued)

States With No Legislation Regarding Branch Banking	(1) Number of Banks 1946	(2) Number of Banks 1961	(3) Absolute Change in Number of Banks 1946-61	(4) Percent Change in Number of Banks 1946-61	(5) Total New Bank Formations 1946-61	(6) Number of Banking Offices 1946	(7) Number of Banking Offices 1961	(8) Absolute Change in Number of Banking Offices 1946-61	(9) Percent Change in Number of Banking Offices 1946-61
New Hampshire	64	73	+ 9	+14.1	6	122	77	−35	− 31.3
Oklahoma	383	387	+ 4	+ 1.0	22	383	388	5	+ 1.3
Wyoming	55	55	0	0	7	55	55	0	0
States Prohibiting Branch Banking									
Colorado	142	166	+ 24	+16.9	36	142	166	24	+ 16.9
Florida	184	315	+131	+17.1	172	185	324	139	+ 75.1
Illinois	871	973	+102	+11.7	184	869	980	111	+ 12.8
Kansas	614	590	− 24	− 3.9	34	613	593	−20	− 3.3
Minnesota	677	688	+ 11	+ 1.6	42	636	695	59	+ 9.3
Missouri	596	622	+ 26	+ 4.4	49	596	625	29	+ 4.9
Montana	110	122	+ 12	+10.9	19	110	122	12	+ 10.9
Nebraska	409	420	+ 11	+ 2.6	37	417	421	4	+ 1.0
Texas	851	1017	+166	+19.5	237	857	1013	156	+ 18.2
West Virginia	180	181	+ 1	+ 0.5	14	181	181	0	0
Wisconsin	552	564	+ 12	+ 2.2	22	705	720	15	+ 2.1

Source: Branch restriction format, **Banking Concentration and Small Business.** A Staff Report to the Select Committee on Small Business, December 1960, page 35.
Columns 1 through 4—**Federal Reserve Bulletins,** February 1962, p. 237 and June 1947, p. 752.
Column 5—State bank data supplied by banking departments of the various states. National bank data supplied by the Comptroller of the Currency.
Columns 6 through 9—**Polk's Bank Directory,** March 1961 and March 1947.

clear, however, whether competition is heightened by the existence of more units or more offices.

The extent to which economies of scale characterize banking is another important question. If costs continue to decline as banks become very large, then wide branching privileges would result in a strong push toward concentration of banking assets. Under these conditions, increased branching privileges would lead to a sharp increase in merger applications.[13]

If economies of scale do not exist or are of limited significance, branching restrictions might be dropped or loosened. The important parameters here are the total size of the commercial banking industry, the minimum number of units necessary to give reasonable assurance of effective competition, and the size of banks when costs start to turn up.

On the other hand, much additional research is needed to quantify some of the arguments which are presented in defense of the continuance of branching restrictions. Research results would be extremely desirable to answer questions such as the following: What differences are there in the lending activities and other banking actions between unit banks and branch systems? Is there any economic or social value to local control over banking? Are branch managers less in-

[13] It is too early to assess fully the impact of the recent decision of the Supreme Court to restrain the Philadelphia National Bank from merging with the Girard Trust. But, the concentration guidelines set in the case suggest that the growth of concentration through merger could be largely contained if existing antitrust legislation were strongly enforced.

terested in community affairs than unit bank officers?

Surveys of loan portfolios of commercial banks indicate that large banks make a large fraction of their loans to large businesses, while small banks make a large fraction of their loans to small businesses. Since restrictions on branching lower the average size of banks, there is a question of whether the removal of these restrictions would adversely affect the ability of small and medium sized businesses to get bank financing.

The Horvitz study of the structure of banking in New England examined this question and concluded:

> . . . there is some evidence to support the view that branch bank lending policy is impersonal in the sense of not taking account of the individual element in the lending process to the same extent as unit banks. This is seen in the relatively small number of unsecured loans made by branch banks to small borrowers. We have also seen that as far as interest rates are concerned, small borrowers are likely to be better treated by the small unit bank than by the large branch bank. A reasonable conclusion from this evidence is that small borrowers are harmed rather than helped when the unit bank in their community is replaced with a branch of a large bank.[14]

The quotation above refers to commercial borrowers. Branch banks, Horvitz states, "are usually much better set for personal loans than unit banks." It should also be noted that Horvitz in his final analysis concludes in favor of branch banking for New England.

Without further research no general conclusion seems warranted. It is clear, however, that if restrictions on branching are changed, restrictions on entry ought to be changed concurrently. Continued restrictions on entry argue in favor of continued branching restrictions, because the heightened incentive to merge in areas where branching is permitted could in time cause too drastic a reduction in the number of competing banks, if charters for new entry were not easily granted.

The question of whether, and to what extent, to change branching restrictions is probably the most important among those facing the bank regulatory authorities. Changes in branching restrictions could have more far reaching effects on the structure of the commercial banking system than any other regulatory change under consideration.

V. *Forces of Change*

There is reason to believe that the banking community may be relied upon to press for needed changes in the regulations governing bank operations. These regulations tend to inhibit the ability of banks to compete with other financial intermediaries. As a consequence, forces are set in motion which will help to alter these regulations in a socially desirable direction.

This is not true, however, of entry restrictions. There is reason to believe that changes within the banking system which have occurred since the early 1930's, as a result of deposit insurance and more knowledge and ability to act on the part of the Federal Reserve, may have made entry restrictions unnecessary or less necessary.

However, neither bankers nor the majority of the bank regulatory bodies strongly desire to ease entry restrictions. Bankers cannot be expected to agitate for an easing of these restrictions. It is only natural for a businessman to abhor additional competitors. On the bank supervisory side, the job of the regulatory authorities is eased by restrictions on entry; fewer bank failures are encountered, and it is easier to coerce existing banks to increase capital when this seems desirable. Moreover, uncertainty exists as to what will happen to the rate of return if a policy of easy entry is instituted. Also, the

[14] Horvitz, *op. cit.*, p. 170.

increase in competition and other public benefits to be gained from an additional bank in an area is open to much conjecture. Hence, for the most part the banking authorities cannot be expected to ease restrictions on entry into banking as quickly as is socially desirable. Thus, if entry restrictions are to be changed, the impetus must to some extent come from outside the industry.

This latter point is probably the strongest argument in favor of the dual banking system. Under a dual banking system, two chartering authorities can be approached to allow a bank opening in any geographical location. If the state authority is very restrictive, banks may be chartered by the Comptroller, and vice versa. The constraint will come from the least restrictive agent. It is interesting to observe how this has worked in the 1946-1961 period. During this period, 581 new state banks and 203 new national banks were opened. New national banks exceeded state bank formations in only seven states. It is difficult to generalize from available data, but they do suggest that the Comptroller has been more stringent than most state authorities on new entry during this period. Recent statements of the present Comptroller indicate that the Comptroller's office will be less restrictive in granting new charters in the future. These statements are borne out by the record. In his first eighteen months in office, Comptroller Saxon has issued more than four times the number of new bank charters that were issued by his predecessor, Comptroller Gidney, in his last eighteen months in office; 187 granted by Saxon, versus 45 granted by Gidney.

Disagreements over branching restrictions have been almost wholly intramural affairs within the banking community. The general public has been almost totally unconcerned. The academic community has, in general, been in favor of the extension of branching privileges, but has not been overly active in pushing its opinions. This may be fortuitous. Academic opinion has probably been substantially influenced by comparisons with other businesses where branching privileges are freely exercised. In those businesses, however, new firms are also free to enter any market. In banking, entry is restricted. As has been shown, wide branching privileges and restricted entry tend to lower the number of banking units. In time, this could lower the number of competing banks to the point where active competition was precluded.

The question of bank branching is too important economically to allow the decision to be made by heavily vested interests. Research on this question is vital. Moreover, the results of such research must be made influential in the decision-making process.

►J. M. CULBERTSON

This is a review article of A Monetary History of the United States, 1867-1960, *by Milton Friedman and Anna Jacobson Schwartz. Princeton: Princeton University Press, 1963, a study of the National Bureau of Economic Research. Pp. xxiv, and 860. $12.50.*

United States Monetary History: Its Implications for Monetary Theory

We now have a part of the results of the extensive Friedman-Schwartz research project on United States monetary history. The product is a book that is unusually important and ably done. If it succeeds in its basic objective of forcing a reconsideration of the role of money in our economic history, and especially in the Great Depression, it will be an extraordinarily influential book.

This study, true to its title, is straight economic history. It is an " 'analytical narrative' of post-Civil War monetary developments in the United States."[1] Thus, it does not comprise the entirety of the much awaited empirical support of Professor Friedman's monetary theories. This volume aims "to provide a prologue and background for a statistical analysis of the secular and cyclical behavior of money in the United States."[2] The more detailed interpretation of the forthcoming companion volume, *Trends and Cycles in the Stock of Money in the United States, 1867-1960,* presumably will bring us more fully to grips with the original and controversial methodological and theoretical constructs associated with the name of Professor Friedman. These play a secondary role in the present volume.

Although this is a monetary history of great scope and depth, it has a single central thesis that is simple, fundamental,

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[1] P. xxi.

[2] P. xxii.

and enormously important: It is that money has played a key role as an independent causal agent in our economic affairs, and the Great Depression—contrary beliefs notwithstanding—offers no exception to this rule. Or, as the authors put it:

> Throughout the near-century examined in detail we have found that:
>
> 1. Changes in the behavior of the money stock have been closely associated with changes in economic activity, money income, and prices.
>
> 2. The interrelation between monetary and economic change has been highly stable.
>
> 3. Monetary changes have often had an independent origin; they have not been simply a reflection of changes in economic activity.[3]

The central thesis of the book does not involve any of the distinctively Friedmanian doctrines on monetary theory and policy. It is the basic thesis of the classical and neoclassical monetary theory. In its basic argument, this book is not inconsistent with Irving Fisher's effort 40 years ago to support empirically by similar methods essentially the same thesis.[4]

Thus, the principal contest of ideas arising from this work is not one between orthodox monetary theory and Friedmanian innovations, but rather between orthodox monetary theory and the modern belief that the money supply is not an important causal variable. Since a close association exists between movements in money income and in the money supply, what is at issue is only the question of whether the influence exerted has been one running mainly from money to income, as the orthodox theory holds, or from income to money supply, as the anti-monetary doctrines must argue. This book gives explicit and careful attention to this question, pursuing it relentlessly down through history.

It seems to me that the case for the orthodox monetary theory, as buttressed by the detailed evidence offered here, is unassailable. The authors demonstrate that generally—and surely in a number of crucial test cases—the behavior of the money supply reflected political, international, and institutional considerations, and thus the influence must be viewed as running from money to income.[5] If the causal influence of money on income is thus established, presumably it applies also in cases where influence also runs in the other direction, where mutual causation exists between changes in money and in income. This is all that the orthodox monetary theory had to argue.[6]

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[3] P. 676.

[4] Irving Fisher, *The Purchasing Power of Money*, New York: The Macmillan Company, 1922, especially Chapters 11 and 12. Considering the similarity of purpose and argument, it seems surprising that the authors do not make more reference to Fisher's work.

[5] The evidence for the independence of monetary changes is summarized on pp. 686-695. Especially crucial "experiments" are seen as the autonomous monetary restrictions of 1920, 1931, and 1936-1937.

[6] References to "orthodox" monetary theory in this article apply to the thesis that autonomous variations in the amount of money (defined in terms of the means-of-payment function) are a potentially significant and historically important cause of change in money income and prices. This view does not assert that velocity of circulation is constant or deny that nonmonetary factors can significantly disturb money income, especially in the short run. Thus, it is only a broad outline of monetary theory, and not a precise quantitative formulation. Eminent expositions of this approach were especially Fisher, *op. cit.*, and Alfred Marshall, *Money, Credit, and Commerce*, London: Macmillan and Company, Ltd., 1924.

It could not be argued that this orthodox monetary theory was fully developed or free

The crucial matter of contention is the role of independent monetary changes as a causal factor in the Great Depression, since this is the major case in point offered by proponents of the anti-monetary doctrines. The nonmonetary interpretation of the Great Depression is the foundation of the Keynesian revolution, of much of the macroeconomic theory still taught to students, and of ideas still reflected in the formulation of economic policy. A reinterpretation of this affair will have implications that are immensely far-reaching and important. It seems to me, as is indicated below, that the anti-monetary doctrines are untenable on their face and that the excellent and detailed review of the chronology of the Great Depression provided by Friedman and Schwartz may be what is needed finally to force a reconsideration of this whole period.

Insofar as their thought is influenced towards acceptance of the basic thesis of this book, readers will be put to asking what are the broader implications of this for their economic beliefs, and specifically, whether they are required to follow Friedman into his own distinctive doctrines on monetary theory and policy. I think it important to observe that this is by no means the case. What this book supports is the basic premise of orthodox monetary theory and not specifically the Friedman version of monetary theory. Indeed, in some respects the interpretation embodied in this book is inconsistent with distinctively Friedmanian doctrines. Thus, a reconstruction of monetary history and theory need not follow Professor Friedman's concepts and method. It is argued below that it should not.

The argument of the book is developed in rich complexity, with attention to the role of political factors, the climate of ideas, and fortuitous factors that would escape less thorough students. It is tightly argued in its details, and exceedingly well written. Despite its length, it makes interesting reading, except for some of its most technically detailed sections. The appended data on the money supply and its proximate determinants and the velocity of money are important contributions. The authors generally are careful—and sometimes lean over backwards—to avoid excessive claims for their empirical demonstrations.

Some parts of the book probably are too detailed to command the interest of many readers. Also, the authors' strict adherence to the idea of an "analytical narrative" resulted in a paucity of summarization and pulling together of the interpretation, which will add somewhat to the problem of the general reader. Although the empirical work is well documented, references to economic literature are uneven. No effort is made consistently to relate this study to relevant economic literature, and some things that would have improved the intellectual framework of the study seemingly were not noticed.

My suggestion is that the importance of the theme of this book and of its potential impact upon future thought is such that every economist and student of monetary affairs ought to feel impelled to familiarize himself with at least the general outline of its argument. Perhaps the best way to do this—or to make a start at it—is to read the introductory and summing-up chapters (1 and 13) and the two chapters dealing with monetary policy in the Great Depression (7 and 9). The book in its entirety is essential reading for monetary economists and economic historians. It will provide a stimulus for their efforts for some time to come, and a reference source of permanent value.

This article outlines the argument that

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from objections. In particular, some of the flaws in Marshall's view of the matter doubtless were among the factors that propelled Keynes, both by positive attraction and negative repulsion, to a position that now seems in important respects erroneous.

the experience of the Great Depression does not contradict orthodox monetary theory, considers some basic issues of monetary theory that affect the Friedman-Schwartz analysis, and reviews a few examples of questionable historical interpretations by the authors.

I. *The Great Depression's Implications for Monetary Theory*

The detailed review by Friedman and Schwartz of Federal Reserve policy in the Great Depression makes a great contribution in adding to our understanding of that period.[7] However, the refutation of the usual anti-monetary interpretation of the Depression does not seem to me to turn on the details of the case. We are obliged to begin our interpretation of this period with a presumption from other experience—as is represented in the work of Fisher and of Friedman and Schwartz for prior United States experience—that major changes in income are closely dependent upon causal changes in money supply.[8] Then we ask whether it is true, as is widely believed, that the experience of the Great Depression contradicts and overturns this presumption. We find that, on the contrary, this experience is entirely consistent with it, and that it ought to be viewed as strongly supporting orthodox monetary theory.

If the 1929-1933 economic decline in the United States had occurred despite a continued normal growth in the money supply, then orthodox theory would be contradicted. But, of course, this is not what happened. The United States money supply in 1929-1933 fell by one-third.[9] It is not difficult to believe that such a monetary collapse can cause deflation and depression. Indeed, what would be difficult to believe is that such a monetary collapse could occur without causing deflation and depression.

Perhaps, however, the proponent of the anti-monetary views could conclude from this experience that, although a drop in the money supply causes economic collapse, under some circumstances it may be impossible to prevent such a drop in the money supply. This would not overturn orthodox monetary theory, but would add an important footnote to it.

Even such a proposition cannot be accepted without further restriction. There obviously are monetary systems under which the money supply need not or could not decline even if there were an exogenous disappearance of investment opportunities. This is true of a domestic commodity money, an international money, government fiat money, and any bank-created money with stable ratios and reserve base.[10]

What is really in question, then, is only the precise placing of the blame for the 1929-1933 monetary collapse in the

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[7] Chapters 7 and 9.

[8] Such were, of course, the terms of reference of contemporary economists. This may be considered with reference to the work of Keynes, which rested upon English neoclassical monetary theory and upon Irving Fisher in the *Tract on Monetary Reform*, and *The Economic Consequences of Mr. Churchill*. This was no less true of the *Treatise on Money* of 1930, although here the ideas that led to the Keynesian misinterpretation of the Depression also began to make their appearance.

[9] Chapter 7. The Friedman-Schwartz concept of money includes time deposits of commercial banks. Using the orthodox concept including only currency and demand deposits, which is defended below as the appropriate one, the decline during this period is about one-fourth.

[10] Fisher's rejection ("except to a limited extent during transition periods") of the old idea that prices (and money income) are the independent variable and money supply the dependent variable rested on the argument that, for example, deflation would tend to *increase* the amount of gold, and thus the money supply, rather than to *decrease* it. Fisher, *op. cit.*, pp. 169-174.

United States. In other words, we have a choice between two propositions:

(1) The monetary collapse that was a principal cause of the Great Depression resulted from the peculiarly unstable monetary institutions set up by the Federal Reserve Act and other monetary legislation.

(2) The monetary collapse that was a principal cause of the Great Depression resulted from the unwise actions of the Federal Reserve System within an institutional framework that was not necessarily unstable.[11]

The choice among these two propositions is interesting, and not unimportant for our future deliberations about United States monetary institutions and policy. But neither of them in any way refutes orthodox monetary theory. Neither of them creates a necessity for a stagnationist interpretation of the Great Depression, or for attributing the economic decline to such improbable causes as the passing of the frontier or the decline in the birth rate. The orthodox monetary theory seems to fit the facts perfectly well as the central element in the explanation of the Great Depression.[12]

The anti-monetary interpretation of the recovery phase of the Great Depression is also not required by the facts. If there is one piece of certain wisdom universally accepted as arising from the Great Depression, it is that "you can't push on a string"; that monetary policy may possibly be able to cause economic contraction but it surely cannot cause economic expansion.

Yet the evidence is the exact opposite and constitutes a perfect case in point for orthodox monetary theory. In 1933, the reserve base of the banking system

[11] The authors find for the second proposition: "The failure of the Federal Reserve System to prevent the monetary collapse reflected not the impotence of monetary policy but rather the particular policies followed by the monetary authorities and, in smaller degree, the particular monetary arrangements in existence." (P. 300; see also p. 699).

The authors effectively undermine the usual arguments as to the inevitability of the monetary decline. They show that the decline was not caused by unwillingness of banks to use their reserves, but rather by an extraordinary decline in the volume of reserves (pp. 332-349), that shortage of gold seems to have been an *ex post* rationalization of System policy rather than a real basis of it (pp. 399-406) and that the System actually sterilized gold inflows during 1929-31 (pp. 340, 378-379, and 396), that the actions taken did not arise inescapably out of the thinking of the time but were consistently opposed by the most knowledgeable unit with the System, the Federal Reserve Bank of New York (Chapter 7), that the System could act to make large open-market purchases when it chose to do so, as illustrated by the purchases made under Congressional pressure in April-June 1932 (pp. 322-324, 384-389), that the policies followed reflected the power balance and governing ideas of the Federal Reserve System (pp. 407-419).

Thus, far from being inevitable, the protracted monetary collapse was really an extraordinarily improbable event. The authors argue persuasively that if the Federal Reserve System had never been established the monetary collapse probably would have ended in 1930 with restriction of the currency drain by concerted bank action (pp. 328-330, 693-694). They demonstrate that even given the establishment of the Federal Reserve, the whole story would have been different had the Federal Reserve Bank of New York at just this time not lost control over System policy (pp. 411-419, 692-693). To add a personal element, had Benjamin Strong lived and remained at the helm in New York, assuredly he would have applied the lessons he learned from the panic of 1907 and the whole story could only have come out differently (pp. 411-414, and 692-693).

[12] The authors' cautious conclusion seems difficult to dispute: "Prevention or moderation of the decline in the stock of money, let alone the substitution of monetary expansion, would have reduced the contraction's severity and almost as certainly its duration. The contraction might still have been relatively severe. But it is hardly conceivable that money income could have declined by over one-half and prices by over one-third in the course of four years if there had been no decline in the stock of money" (p. 301).

stopped contracting and began to increase rapidly because of an autonomous factor—gold inflow resulting from the devaluation of the dollar and the subsequent political turmoil in Europe. Thereupon, the money supply came to the end of a phase of declining rapidly and began increasing even more rapidly. Whereupon the economy's money income ended its long decline and also began rising rapidly. From 1933 through 1936 GNP rose an average of about 15 percent a year.[13]

The defender of orthodox monetary theory may find it hard to avoid a certain stridency in his voice when he asks—"How do these events show that monetary policy cannot cause economic expansion?"

Assuredly, the recovery from 1933 to 1937 was not a fully satisfactory one. But to produce immediate full employment after a cumulative four-year collapse that ended with 25 percent unemployment would have required nothing less than a miracle. An annual rate of increase in money incomes of 15 percent is a good deal more than would be desirable under any normal circumstances, but it is less than was needed to return rapidly to full employment under those conditions, especially since a good deal of the rise in money income was swallowed up in wage and cost increases, which it was a major objective of the government to encourage.[14] The rapid rise in money income increased employment at more than the

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[13] See pp. 493-499.

The interpretation of the role of money during this period is importantly affected by the concept of money that is used. Friedman and Schwartz include time deposits at commercial banks in the money supply. They find the money supply declining by one-third during the contraction, at a rate of 10 percent a year, with a decline in velocity during this phase of one-third (p. 301). If money is defined in the orthodox way as demand deposits and currency, its drop is one-fourth, and the decline in velocity is larger (p. 774). In the authors' analysis, the money supply rose about 10 percent a year in 1933-1937, but remained some 15 percent below its 1929 level, and velocity during this period rose 20 percent. On the basis of the orthodox concepts, the money supply rose at about a 13 percent a year rate, and in 1937 was about one-tenth above the 1929 peak. On this basis, velocity increased but little in 1933-1937 and at the end of the period showed a net reduction since 1929 that was much larger than in the other interpretation. In relation to the authors' later efforts to apply a simple interpretation of changes in velocity (Chapter 12), these discrepancies, depending upon the concepts applied, are large.

The authors' basic thesis that changes in money are an independent causal factor—with changes in the money supply arising largely out of changes in bank reserves—stands up well for the orthodox concept of money, but less well for the one used by the authors. Monthly data show that while changes in demand deposits are immediately responsive to changes in the reserve base, time deposits seem unaffected by this and responsive, rather, to changes in income, confidence in banks as a repository of saving, and incidence of bank failures. Among episodes that disclose this responsiveness of demand deposits to reserve changes and nonresponsiveness of time deposits are (1) the temporary provision of reserves in October 1929, (2) the increases in reserve requirements in 1937. The second case is particularly striking. The authors take this as one of their test cases in which an autonomous policy action surely impinged causally upon the economy. They argue that expansion in the money supply was slowed and then halted by the effects on bank reserve positions of increases in required reserve ratios plus sterilization of gold imports (pp. 526-27, 544), and I think that this is correct. However, the decline in money supply after March, to which they refer, was entirely confined to demand deposits. The reserve stringency had no considerable effect upon time deposits, which continued to rise through September and at no time during the episode showed any significant decline (table on p. 715).

In other words, not only does it make a good deal of difference to the analysis how the money supply is defined, but if the rationale of emphasizing the concept of money is the alleged independence of this variable, its responsiveness to bank reserves and thus to policy actions, the factual record supports the orthodox reasoning that the relevant concept excludes time deposits.

[14] In this, see pp. 497-499.

trend rate, and reduced unemployment, but at a rate that—as a matter of arithmetic—would not have restored full employment until about 1942.

This, of course, does not contradict the monetary interpretation of the Depression, it merely illustrates that after four years of unparalleled deflation it is going to take either a prolonged or an extraordinarily rapid increase in money and money incomes—beyond those offset by price increases—to get back to full employment. There does not seem to be any reason why the increase in money supply and in money incomes could not have been more rapid. If the reversal that actually occurred in the behavior of bank reserves (or high-powered money) sufficed to turn a rapid decline in the money supply into rapid increase, there is every reason to believe that a still greater increase in bank reserves would have brought a still more rapid increase in money supply. Policy could have brought this about, but it was not seeking to do so, rather the opposite.

The fact that a recession reversed the economic expansion in 1937 also is not inconsistent with monetary theory. Notoriously, this followed immediately upon a drastic reduction in effective bank reserves caused by Federal Reserve action to double member bank required reserve ratios (accompanied by sterilization of gold inflow), which caused a reduction in the money supply, temporarily weakened the securities markets, and reawakened fears (Chapter 9). Reversal of restrictive monetary policies and resumption of monetary expansion based upon continued gold inflows (autonomously caused by political deterioration in Europe) brought resumption of rapid expansion of the money supply beginning in the summer of 1938. This was attended again by resumption of increases in money income that were large by any ordinary standard. But the recession had set the timetable of recovery back more than three years. It was 1940 before employment regained the percent of potential that it had reached in 1937. The new timetable implied that full employment would not be reached until about 1946. It was at this point that the war intervened and ended the unhappy experiment.

The whole story seems to fit perfectly well into the framework of orthodox monetary theory. The money-income relation—or velocity of circulation—was not stable during this period, but its variation was not of an unexpected sort; nor was it inconsistent with that of earlier periods that had been seen as explained by monetary theory.[15] As a result of deflation,

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[15] The primitive state of monetary theory implies that specifications as to the expected behavior of velocity must be rather loose. However, as the authors show, it was usual experience that velocity declined during a business contraction (pp. 302-303). Thus, given the extent of deflation and the unusual unattractiveness of spending inducements during the 1929-1933 contraction, it is not surprising that velocity fell sharply. The authors make an interesting argument, referring to the greater decline in Canada, that, had not the attractiveness of holding of deposits been reduced by the high incidence of bank failure, the reduction of velocity would have been greater (pp. 303, 352-353).

During the expansion phase, the behavior of velocity and thus the interpretation that must be applied to it is more noticeably affected by the definition of money—and thus of velocity—that is used. The authors find a substantial rise in velocity in 1933-1937, which they see as usual velocity behavior during economic expansion (p. 497). However, the orthodox definition of money leads to no appreciable rise in velocity during this period (time deposits rose much less rapidly than demand deposits over the interval). This can be rationalized on the basis that the restoration of confidence and of attractiveness of spending opportunities proceeded much less rapidly than in other expansions—which was indubitably the case—and that the situation was a disequilibrium one in which large increases in the money supply were pushing expenditures up in an environment that remained adverse (partially because of government programs), and thus the actual velocity was less than the relevant equilibrium one.

The interpretation of velocity during the

depression, and economic demoralization, people built up their cash ratios, and velocity of circulation slowed. During the war, it slowed further, for other reasons. After the war, it gradually moved back towards the earlier level as these special factors passed away and out of expectations.[16]

In terms of the behavior of velocity, a persuasive demonstration in support of the "you-can't-push-on-a-string" thesis would have required that velocity fall during 1933-1937, as the gold inflow caused rapid monetary expansion, and thus the string was, indeed, being pushed on. However, this is not what happened. On the orthodox definition of money, velocity changed little over this period, and thus the rise in GNP was almost proportional to the increase in money supply. If time deposits are included as money, velocity actually rose during this period.

The detailed review by Friedman and Schwartz shows that the close relation between changes in money and income cannot be explained as reflecting entirely the influence of income on money. The influence of gold flows and obviously autonomous Federal Reserve actions is too great (pp. 686-695). The authors suggest—a theme that needs further development—that the factors seen as causal in the anti-monetary interpretations are plausibly explained not as causes of the depression but rather as consequences of a depression that basically was caused by monetary factors. When once this large question is raised, it is difficult to avoid being intrigued by the thought of how much of what is now believed about the sources of the Great Depression may be a mythology, gradually built up to explain what otherwise—the monetary explanation being ruled out for reasons considered below—seemed inexplicable.

To illustrate the point, if a prolonged and severe monetary deflation were imposed upon an economy, is it not inescapable that the stock market would fall catastrophically, and when seen from the depression bottom would seem to have been outrageously high?[17] Is it not inescapable that with severe deflation and underutilization of the economy investment opportunities would appear unattractive, and debt defaults rise (pp. 353-357)? It is not inescapable that with the spread of poverty, uncertainty, and demoralization, the birth rate would fall.

If the explanation of the Great Depression in terms of basic real factors were correct, then it was to be expected—as it *was* expected—that these factors would continue to operate. Yet after the war, when monetary deflation no longer existed, the stock market pulled back up to its old price-earnings ratio; investment opportunities seemed ample even at rising

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depression and war periods can affect judgments on current policy, since it affects estimates of the deficiency of velocity in the early postwar period below what would have been an equilibrium value under conditions of prosperity. Differences in judgment as to the implications of the continued rise in velocity since the war trace back partially to this matter.

[16] The authors detailed consideration of the postwar behavior of velocity (chapter 12) depends upon their distinctive concepts and methodology. See below, pp. 369-374.

[17] It is almost universally accepted that stocks were terribly overvalued in 1929 as a result of a speculative boom, and that the subsequent collapse of the market was a significant cause of the Depression. Undoubtedly there was speculation and chicanery in the stock market, neither of which was new to the U.S. scene. But how many people have noticed that the average price-earnings ratio in 1929 was lower than it has been recently? This suggests that if the market had been vindicated in its plausible judgment that the Federal Reserve System was going to do what it was expected to do—prevent banking panics and achieve economic stability—and if thus there had been no deflation of prices and incomes, the stock market in 1933 would probably not have been lower than it was in 1929.

interest rates, no more was heard of economic maturity or the lost frontier, and the birth rate rose.[18] How much of our accepted economic history of this era is sheer self-deception?

If, thus, one views the Great Depression in the light of orthodox monetary theory, the whole experience has about it a nightmarish quality. Why did the Federal Reserve System let the banking system go through a series of panics and collapse completely, when this was precisely what the System had been set up to prevent? How could a central bank possibly permit, and even actively participate in causing, an unprecedented destruction of one-fourth (or one-third) of a nation's money supply in less than four years? When prices and money incomes were so closely responsive to changes in money supply in both directions, how could people have concluded that monetary policy does not matter?

Clearly, these policy actions could not have been taken nor this interpretation made if the terms of reference applied had been those of monetary theory. Obviously, what governed was some other system of ideas. What can it have been?

The answer seems to me to be—and this is another theme that needs further development—that the ideas applied were those of the "banking-school view" of central banking, which has always influenced the Federal Reserve and still does influence it today.[19] The Federal Reserve paid little regard to the behavior of the money supply. It was concerned with the quality of credit. It persuaded itself that the economic decline had been caused by speculation and unsound credit, which were encouraged by excessively "easy" credit, and that all it could do to help the economy was to prevent unsound credit conditions caused by "re-

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[18] Since 1957, when money growth and expansion in money income have again been insufficient to maintain full employment, the old explanations have been dragged out again.

[19] The authors give a number of illustrations of the influence of the fear of "redundant money" and of the inflationary or speculation-inducing effects of "excessively easy credit" (pp. 367-380, 407-419, 691-693). However, in their explanation of "why monetary policy was so inept" they place the primary emphasis upon the power struggle within the Federal Reserve System—as the Federal Reserve Bank of New York lost effective control and the Board of Governors had not yet gained control—and the resulting lack of effective leadership (pp. 11, 390-391, and 691-693).

Assuredly this power situation is an important part of the picture, but it does not seem to me the most basic consideration. What is in question is not mainly considerations of effective as against ineffective administration of monetary policy, but the basic direction in which policy was to head. The issue is not even one of action versus inaction, or course-of-least-resistance versus a more ambitious policy. As the authors show, the System during this period sold securities when it could just as easily have retained them, and it ran considerable political risks to maintain its contractive policy, terminating as soon as Congress went out of session in 1932 the open-market purchases that it had earlier made under Congressional pressure (pp. 384-389), and taking positive action to reduce the Federal Reserve portfolio in January 1933 (pp. 389-390).

In other words, the basic significance of the shift of power from New York is that the governing set of ideas then became an extreme version of the banking-school view, one that saw the road to economic salvation through liquidation of unsoundness and avoidance of speculation through prevention of "redundant money." Had the various groups within the System shared the same set of ideas, the shift of power could have meant only a less effective administration and perhaps some lost opportunities to speedy action. But the distinctive characteristic of the policy of the times was not really that it was *inept*, but that it was positively, effectively, and devastatingly wrong-headed.

The contribution of the banking-school view to Federal Reserve monetary restriction and economic slack in 1960-1963 is pointed out in my book, *Full Employment or Stagnation?* New York: McGraw-Hill, 1964, Chapter 12.

dundant money." It thought that the way to prevent "redundant money" was to withdraw bank reserves. It went on its way, to the bitter end, innocent of the idea that by destroying bank reserves and money it was causing deflation and reducing credit demands. Thereby, it was causing both "redundant money" and debt defaults rather than curing them. The idea that Wicksell had brought forth 20 years earlier to combat the ancient banking-school fallacy—that even though the market rate of interest is below historical averages, if it is maintained by the central bank above the current natural rate of interest it will result in a cumulative deflationary process—this idea seemingly did not come within the ken of Federal Reserve officials, and seemingly has not done so yet.

Evidently there is no limit to the amount of deflation that can be administered under such a regimen. The more the reserve base and money supply are contracted, the further deflation goes, the more depressed investment and credit demands become, and the more "redundant money" the central bank feels impelled to mop up by contracting the reserve base. Since it is not clear that the Federal Reserve ever learned this lesson, the monetary interpretation must conclude that the reversal of the decline in 1933 was fortuitous. The gold inflow that turned the tide was caused by the large devaluation of the dollar and the political deterioration in Europe. The United States finally got monetary expansion, thus, somewhat accidentally and only by making unparalleled inroads on the gold reserves of other countries—an outrageous violation of any reasonable rules of international economic relations. It even went so far as to sterilize a good deal of the gold that it was pulling out of other countries. In the absence of the gold inflow, it seems quite possible that monetary contraction would have continued still longer. Against a declining, or even a stable, monetary base and rate of money income, the government's programs for raising wages and prices would probably have increased the volume of unemployment.[20]

If one thus applies the banking-school view, does not admit the behavior of money to his interpretation of the Great Depression, and applies naive criteria as to "normal" or "proper" interest rates and credit conditions, then he may conclude that monetary policy did not contribute to causing the Depression, but did everything that it could have done to prevent it. Then he must seek elsewhere for an explanation of the Depression. The fertility of the human imagination and the potentialities of the post-hoc fallacy are such that many explanations were found. The Federal Reserve and the financial community saw the blame mainly in speculation, easy money, unsound credit and other distortions and maladjustments, plus unsound government policies and interventions in the economy. The alternative explanation more largely espoused by the economists was the stagnationist one, positing an autonomous drying up of investment opportunities. The common denominator of public thought and opin-

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[20] A part of the mythology of the Great Depression is that it was imposed upon the United States by the world depression. The authors argue effectively that here, again, the causation ran mainly in the other direction. After all, from 1929 until the collapse of the gold-exchange system in 1931, who was it that was imposing extreme deflation, draining gold from other countries, and sterilizing it in order to have more deflation? No one but the United States (pp. 360-362, and 378-379). If the United States had not committed these policy outrages (and France had not played a familiar role in undervaluing her currency and then draining the world's gold), perhaps the gold-exchange system—despite its inherent instability—might have survived for at least some additional years. In any case, it is clear that in the early years of the Depression, the United States was an exporter of deflation rather than an importer.

ion was its rejection of the monetary factor. This probably is to be explained by the success of the Federal Reserve in selling the idea that it had followed a policy of "easy money," and anything more than this would only be "pushing on a string," or would contribute to harmful speculation and a new depression.[21]

If we could construct some sort of unbiased machine for weighing evidence, constructing concepts, and choosing among theories or explanations, and if we could feed into it the evidence that now exists, I think its verdict would have to be that the banking-school view is basically fallacious, that the monetary interpretation of the Great Depression is essentially correct, and that orthodox monetary theory still stands as a valid rough outline of the shape of monetary experience. But it is by no means so clear that this interpretation actually will soon come to prevail, either among economists or in central banks, or even that further experience with foolish and destructive monetary policies can be precluded.

Although economists, from further thought and the pressure of evidence, have been swinging away from anti-monetary theoretical views, a thoroughgoing reinterpretation of the Great Depression that requires discarding economic maturity, liquidity trap, and "pushing on a string" will still be quite a wrench. Perhaps it will require "a long struggle of escape . . . from habitual modes of thought and expression." This is the more true in that it will require admitting that the "Keynesian Revolution" just conducted with so much enthusiasm and flying of banners was, in a basic theme, erroneous. Its premise was in error. The starting point of the Keynesian revolution was a version of the banking-school fallacy.

The financial community and the central bankers have long been given to the banking-school fallacy. Its emphasis upon "soundness" and its placing of banker judgment at the center of the economic universe is naturally satisfying to this group. Moreover, central bankers are well served by a set of ideas according to which it is virtually impossible for them to be wrong—during booms credit is inevitably "tight" and during depressions it is always "easy."

Even beyond these special commitments to the ruling beliefs, most of us perhaps have a repugnance to the idea that so enormous a tragedy as the Great Depression, which left in train sicknesses from which we are only now recovering—that this was all just a silly mistake. We like to believe that great calamities come from great causes. We should find it insufferable to believe that a war that produced vast misery and death was caused by a miscalculation by a foolish foreign minister. To avoid so demeaning an interpretation, we invent inexorable historical movements and trends to explain wars. Similarly, it suits our sense of propriety that the Great Depression should have some great and mysterious cause, or should be the penalty for our past economic sins.[22] Each of the two sets of causes chosen is ideologically attractive to the group that holds it. "Conservatives" can have it that the depression arose from sins against the laws of Nature. "Liberals" can have it that it reflected inherent anomalies in the structure of a free market economy. Neither group will find it easy to give up its belief.

II. *Issues in Monetary Theory*

Although the basic thesis of the book is not dependent upon Professor Friedman's distinctive ideas on monetary

[21] See p. 691.

[22] See p. 419.

theory, much of its interpretation does arise from application of his concepts and method. The issues involved will be at the heart of further controversy over monetary theory.

A. The Concept of Money

The key element in the orthodox monetary theory is the concept of money. Money is defined on the basis of the medium-of-exchange function, and thus in modern economies is associated with demand deposits and currency. This conceptualization can be viewed as the finding of a broad empirical investigation that money thus defined is a variable with great potential power to change incomes and prices in ways either beneficial or destructive. This power arises in part from the fact that people desire to hold some ratio of money to expenditures that although not constant is determinate and varies only within certain limits. More distinctively, however, the power arises out of the fact that the behavior of money thus defined is not determined by the price system and the motives governing ordinary economic behavior. Rather, it depends upon a social choice, upon law and historical accident. Thus, it is quite independent of ordinary economic forces and mechanisms of control. This is the burden of the traditional recital in neoclassical discussions of monetary theory of the great variety of monetary systems that have existed at various times and places, the different behavior of money to which they have given rise, and the effects of this on incomes and prices.

The theory includes an explanation of just what it is that confers upon money this distinctive status as an independent or exogenous variable in relation to the economy. It is specifically its medium-of-exchange function which implies: (1) that money derives its value from its general acceptability in payment, which can be conferred by law or social usage on variously-behaved things; (2) that since people make adjustments in their holdings of money through transactions, reflecting its medium-of-exchange use, there is not necessarily any mechanism for adjusting the net creation of money when it is economically disturbing; (3) that adjustments in real money supply with a commodity money, since the money has a price of unity, may have to be made in part by adjusting the general level of prices, or through inflation or deflation; and (4) that with a token money with negligible marginal cost of production, there is no strictly economic constraint whatever on the possible behavior of the money supply.

The status of money as a potentially and actually independent variable in the analysis, which Friedman and Schwartz properly are at such pains to establish with reference to the United States, is thus the central proposition of orthodox monetary theory. It is this that sets money apart. There are things that are in some measure substitutes for money as a short-run store of value, and autonomous changes in the amount of these would have effects similar in kind if not in amount, but the volume of these is more closely controlled by the price system and ordinary economic motives. Their ability to act as an independent variable is limited. Their behavior is mainly an endogenous part of the economic model (except for the liquidity structure of government securities, which is within limits available for variation through debt-management policy). The output of time deposits is governed by takings at an offered price dependent upon costs of transformation, just as is output of economic goods in general, and the range over which policy or social habits can change this is limited.

The orthodox approach leads naturally to a liquidity theory, which parallels monetary theory and which may in some circumstances contribute importantly to explaining short-run developments. But to confound the two and lose sight of the

distinctive role of money is to reject the basic proposition of neoclassical monetary theory. The definition of money in terms of the medium-of-exchange function thus represents the embodiment of a broad empirical review of the operation of economic institutions and behavior. It is the heart of the neoclassical monetary theory.

Friedman and Schwartz reject this conceptualization. They define money as currency plus demand and time deposits of commercial banks held by the public (pp. 4-5) (although tables and charts show also the orthodox measure and a broader one including time deposits outside commercial banks). The authors' rationalization and use of this definition seems full of inconsistencies. Their major discussion of the concept of money comes at the end of the book and is orthodox doctrine. Money is "full of mystery and paradox" because seemingly worthless pieces of paper are so important. This importance arises from their "legal-tender quality" and general acceptability in that "each accepts them because he is confident others will." The use of such a "widely accepted medium-of-exchange is, at bottom, a social convention," and "there is hardly a contrivance man possesses which can do more damage to a society when it goes amiss." The upshot of this is that money impinges upon the economy as an autonomous variable: "The total amount of money available for all to hold is outside the control of all holders of money taken together."[23]

This is all fine, and it fits in perfectly with what the authors are trying to demonstrate—the independent causal role of money in United States economic history. But it implies that the relevant concept of money is the orthodox one. It cannot be said of time deposits or savings obligations in general that they involve any mystery or paradox, that they depend upon general acceptability, that their behavior depends upon an arbitrary social convention, or that their amount is determined independently of the desire of people to hold them. Their concept of money requires that the authors should attack this rationalization and rely upon some opposed one.[24]

They do, indeed, supply a rationalization that is opposed to the one just reviewed, but one consistent with their concept of money. This is that money is not to be associated only with the medium of exchange, but with any "temporary abode of purchasing power enabling the act of purchase to be separated from the act of sale." Thus, money is any liquid asset. The definition of the concept "is not a matter of principle but of expediency," the criterion being "the empirical stability and regularity of relationships between the chosen total and other variables" (p. 650, footnote).

Then the medium-of-exchange function and the autonomous status associated with it are out the window. Any concept of money will do. The contest, seemingly, is to the one that produces the best historical correlations. But what then of the identification problem and specification of the independent variable for statistical analysis? Is not identification of the independent variable or of the direction of causation precisely what is at issue in the

[23] Pp. 695-697.

[24] In logic, it could be argued that although they lack the autonomous behavior of demand deposits, time deposits should be included as money because they are perfectly substitutable for them, are functionally identical with them. As an empirical observation, however, this evidently is fallacious. In general, time deposits have only a limited substitutability for money—a status that they share with many other assets—and they are much more closely substitutable than money for securities and other earning assets. It is this lack of functional identity, of course, that gives rise to the different characteristic behavior of time deposits.

major thesis of the book? Is not a methodology neglecting these problems essentially a return to naive empiricism, a hunting license for spurious correlations?[25]

I submit that, on this most basic and crucial issue, the authors have taken an anomalous and inconsistent position. The only way I can see to correct it is to base the monetary interpretation on the orthodox conception of the money supply and to supplement it by a liquidity analysis embracing both exogenous and endogenous changes in the position of the economy with respect to liquid assets. This would not, I take it, overturn the book's basic thesis, but it would importantly affect everything except the broadest outline of the analysis.

B. The Theory of Velocity

The theory of velocity—if the behavior of the money supply is to be treated as an independent variable—is essentially equivalent to the whole of macroeconomic theory. We should expect velocity in the short run to be responsive to a wide variety of considerations: amounts and yields of liquid assets (not only time deposits); perceived attractiveness of spending opportunities for consumption and for investment in securities and real assets; and response lags in conjunction with autonomous changes both in money supply and in real factors affecting income. This is not inconsistent with the neoclassical conception that velocity was independently determined in the long run by institutional considerations (as was the money supply, which made money income and prices the dependent variables) but in the short run was variable, responsive to a number of factors, not precisely predictable on any *a priori* basis, and not presumptively amenable to a simple explanation.

Approached from this point of view, the Friedman-Schwartz discussion of velocity has several defects:

(1) In holding that no one concept of money is supportable over others on broad empirical grounds, the authors imply that there is no one velocity theory, but a whole family of velocity theories, one for each concept of "money." The choice among these is to be made on the basis of closeness of past correlations. Yet the analysis of this book is largely confined to one of these alternative velocities, and little attention is paid to others.

The authors' detailed discussion of velocity (Chapter 12) is an effort to explain why the secular downward trend in

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[25] A secondary objection to this methodology presumably is that if the choice of concepts is only a matter of expediency and is to be made on the basis of historical correlation, we really do not know anything until the competitive race between the relevant (somehow defined) concepts has been run. Yet the authors ask us to draw important inferences from an analysis dependent upon a concept of their choosing, with no knowledge but that others might do much better.

Doubtless a practical reason for the authors' choice of their concept of money is the difficulty of getting consistent data on medium-of-exchange money for earlier years (pp. 4-5), because of lack of data and the changing and ambiguous status of time deposits. This is an understandable explanation for their choice, but not a justification.

Admitted ignorance is preferable to self deception. If the relevant data do not exist, better to try to create them or to admit to a limitation in our ability to understand the past than to apply irrelevant data. It is quite possible for a nation to set up a variable and ambiguous monetary system, in which the monetary status of competing monies is changing and uncertain. If valid monetary data cannot be constructed by application of other relevant information, there is nothing to do but admit that the period must remain something of a mystery. Where the concepts so importantly affect the analysis (and the discrepant behavior of demand deposits and time deposits recently is a major interpretative issue), it is obviously intolerable to let the conceptual framework for interpretation of current events and policy needs be dictated by the accidents of data collection during the previous century.

velocity found for earlier periods and "explained" by Friedman's permanent-income monetary theory does not fit the facts of the postwar period.[26] But if one applies the orthodox concept of money and uses the government series on money supply, he does not find any noticeable downward trend in velocity over the past seventy years. The whole story is a different one.[27]

(2) To compound the difficulty, the authors seemingly accept a presumption that there is to be found a theory of velocity (their arbitrarily chosen concept of velocity) that is very simple and widely applicable.[28] The logic of this position is not clear. Do they really know, despite their disclaimers, that there is only one right concept of velocity, and theirs is it? Or is it possible to presume that Nature has so contrived matters that velocity can be explained by a simple linear relation, no matter *how* velocity is defined?

This presumption as to the simplicity of velocity theory involves simplicity in a purely formal sense, of a theory involving a linear relation with few arguments that is universally applicable. Such a theory is not necessarily simple in a broader sense. Insofar as it ignores relevant data—such as direct information on the behavior in question, which Friedman might be willing to label as relating to "assumptions" and rule out of bounds[29]—this narrow formalism will not permit the development of a consistent and integrated body of knowledge. But such an integrated body of knowledge is the objective of science. If a concept of simplicity is to be applied, perhaps it should be simplicity of the resulting integrated body of theory and not simplicity of one piece of theory (which is thereby made inconsistent with others) that is important. The substance of the authors' discussion of velocity arises from their presumption that a single formally simple relation should explain both the long-run and the short-run behavior of velocity.

(3) This position implies a neglect of lags, or an assertion that lags are of no consequence. If lags were significant, it would be necessary to have distinct theories for situations involving different states of adjustment and situations involving different disturbing variables, or else to include in the theory a description of the whole lag structure. For example, if responses to monetary disequilibrium are not instantaneous (as we know from the general behavior of the economy they cannot be) then other things equal, velocity should fall in the short run in response to an autonomous increase in the money supply, but should rise in response to an

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[26] See especially pp. 639-643. The permanent-income monetary theory is expounded in *The Demand for Money: Some Theoretical and Empirical Results*, National Bureau of Economic Research, Inc., Occasional Paper 68, 1959.

[27] A chart and brief interpretation on this basis are given in my *Full Employment or Stagnation?*, pp. 128-131. The difference in the picture seems to arise from differences in estimates of the money supply as well as in the concept applied. It would be helpful if some reconciliation of the authors' series with the government series were furnished. It is somewhat annoying to be told that the data provided and used in this book will be explained more fully in a forthcoming volume (p. 703).

[28] Pp. 639-659.

[29] The choice between a broad and a narrow empiricism seems to be a principal issue in Friedman's contention that the "assumptions" of a theory are not relevant to its evaluation. Essentially, he provides a rationalization for neglecting some kinds of data and of empirical tests of theory. See Friedman, "The Methodology of Positive Economics," in his *Essays in Positive Economics*, Chicago: University of Chicago Press, 1953, pp. 14-30, and 40-43.

autonomous increase in attractiveness of spending. In other words, the behavior of velocity during a period of rising income should depend upon the particular factor causing the rising income, and no simple relation of velocity and income should be discoverable. Thus, any short-run analysis that fails to take account of disequilibrium velocities and the dependence of these upon the nature of autonomous disturbances is suspect. Yet the authors generally treat velocity as if it were an equilibrium value and do not distinguish in explaining it between situations in which money change was autonomous and those in which it was not. They do this although their major contention is that monetary changes are sometimes autonomous and longer than others would be willing to admit, although the senior author has elsewhere argued that the response lags are very long.

C. The Long-and-Variable-Lag Doctrine

Friedman has argued that planning of monetary policy must assume a long and variable lag in effects, which he has established empirically.[30] Subsequent discussion disclosed that this conclusion arose from the author's peculiar definition of the meaning of "lag."[31] The detailed empirical support of the finding seemingly is to be forthcoming in the next promised volume of the authors.

What is to be pointed out with reference to the present volume is that the authors have undertaken to explain the monetary history of the past century on the basis that the most prominent effects of policy-induced and other autonomous changes in money supply appear after only a short lag, a matter of a few months.[32] If a long and variable lag—in a sense relevant to policy deliberations and interpretation of the results of past policies—actually exists, this book must be rewritten. This seems to be another inconsistency in Professor Friedman's doctrines.

D. Underlying Methodological Issues

That the unsettled state of monetary theory arises largely from underlying methodological issues is well illustrated by the work of Professor Friedman. The role and concept of money, as indicated above, had been approached in neoclassical theory on the basis of an informal but broad empiricism. Careful construction of concepts on the basis of all known evidence was essentially the way the neoclassical model was identified. The effect of Friedman's "pragmatic" approach to concepts is a retreat to a narrower empiricism, one in which the outcome depends upon association in a limited body of data.

Confusion in the theory of velocity arises from this and another methodological issue. Friedman's permanent-income monetary theory, the basis of so much recent work, arises explicitly out of an arbitrary methodological constraint. It represents an effort to "explain" both the

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[30] *A Program for Monetary Stability*, New York: Fordham University Press, 1960, pp. 87-88; U.S. Congress, Joint Economic Committee, *Hearings, Employment, Growth and Price Levels*, Part 4, 86th Cong., 1st sess., 1959, pp. 611-616; "The Lag in Effect of Monetary Policy," *Journal of Political Economy*, LXIX, October 1961, pp. 447-466.

[31] See my "The Lag in Effect of Monetary Policy: Reply," *ibid.*, pp. 467-468.

[32] The language of the lag doctrine, with its conception of the change in the rate of change in money as the causal factor, appears only rarely in a minor role (pp. 31 and 545). At other points, the conception is that the change in money is the causal factor (e.g., p. 601), and this interpretation is consistently applied to the course of events.

long-run and the short-run relation between income and money on the basis of a simple, equilibrium money-demand function. Explicitly ruled out are shifts in the demand function as defined and recorded values that because of frictions and lags are not points on an equilibrium demand function.[33] But one may argue on the basis of relevant evidence that the demand function as defined has shifted, that the recorded values for velocity cannot all be equilibrium values, and that the behavior of individuals and businesses implied by the theory does not exist. Then the theory must be characterized on the basis of neoclassical conceptions of methodology as a deliberate misrepresentation of the truth, one created by omitting some causal factors and contriving to find a spurious correlation in a limited body of data. In more modern terminology, the theory could be characterized as using a model that is deliberately misidentified to conform to a methodological prejudice.

Thus, the Friedman analysis can be seen as the consequence of the distinctive position taken by the author on two basic methodological considerations: (1) the avoidance of broad empiricism through neglect of broadly based concept formation and of careful identification of the model on the basis of the generality of relevant knowledge, and (2) the application of a preference for theories that are simple in a formal sense in their explanation of the relations in the limited bodies of data applied.

The analysis depends upon the author's methodological preference (or bias) to an important degree. A different set of methodological preconceptions leads to an analysis that differs not only in form, but also in substance and implications for policy. A methodological preconception seems a disturbingly weak foundation for doctrines so underlying policy, and thus influencing the effectiveness of our society.

It seems fair to say that the mainstream of recent thought on methodology runs against the Friedman position. It is aiming toward a more careful interpretation of the meaning of statistical tests and of findings of historical association, toward more explicit and careful identification of economic models. That is to say, it moves back toward a broader empiricism, away from an approach whose findings ultimately depend upon hidden and unrecognized formalistic preferences.

It seems reasonable to conclude that the issues that now produce disorder in monetary theory and leave policy in a hazardous state cannot successfully be dealt with except through explicit consideration of these underlying methodological questions. On the other hand, monetary theory—at once so crucially important and so immediately dependent upon the outcome—may provide a central testing ground for improvement of our methodological ideas and practices.

III. *Some Questionable Interpretations*

The many detailed interpretations included in this view of a hundred years' monetary history will need critical scrutiny by economic historians. I should like to call attention to several interpretative themes of some importance that seem to me incorrect.

A. Deflation and Economic Growth

The authors conclude that "the forces determining the long-run rate of growth of real income are largely independent of the long-run rate of growth of the stock of money, so long as both proceed fairly smoothly" (p. 678). This seems to overturn the belief that price stability is crucially important, that deflation causes unemployment and social distress, and that the unhappy state of

[33] *The Demand for Money: Some Theoretical and Empirical Results*, p. 6.

the United States economy during the latter part of the last century was caused by monetary deflation. Actually, the authors do not fully maintain this. They admit that the deflation of this period "gave rise to serious economic and social problems" (p. 42), but the general tenor of their remarks is that these troubles cannot really have been so bad and must have been exaggerated by contemporaries and historians. The basis of this conclusion is a simple one—that estimated rates of economic growth differed little during periods of deflation and inflation (pp. 92, 41-44, and 678).

There is, indeed, a point to be learned from this era of deflation. It is that given autonomous deflationary pressure, reductions in wages and prices can limit the harm done and play an essential role in permitting an economy to work tolerably well in a situation that otherwise would be completely destructive. The authors' suggestion that the experience shows that steady deflation is not seriously harmful does not seem acceptable for these reasons:

(1) The measure of total output used is not accurate enough to override other evidence on the depressed state of the economy.

(2) In any case, the relevant measure of both the welfare condition and the success of the economy is not the absolute rate of economic growth, but rather the actual rate in relation to the potential rate. Direct evidence on the degree of resource utilization, thus, may be a more important basis of comparison than absolute growth rates. Yet this analysis single-mindedly relies on absolute growth rates.[34]

(3) There may be special reasons why deflation was less destructive during this period than it would be elsewhere, and thus no general conclusion as to its degree of harmfulness should be drawn: industrial profits in new industries were very high, permitting costs of deflation to be absorbed as they could not be in a more settled economy; fixed capital may have been less important;[35] the financial structure may have been simpler; and prices and wages may have been less institutionally rigid.

The neoclassical observation that stability of value of money is a crucial condition for rational and effective economic performance seems to me important and valid. The experience in question had been taken to be a major case in point supporting that view. The authors' argument based on comparison of estimated absolute growth rates does not seem sufficient to overturn that interpretation.

B. The Treasury-Federal Reserve Accord

In the Friedman-Schwartz interpretation, the Korean War "unleashed a speculative boom" (p. 610), which was halted mainly by the Treasury-Federal Reserve Accord. The Accord had this effect, even though the money supply rose more rapidly after it than it had on the average before it (p. 612), because it "raised the public's desired level of money balances by reducing the liquidity of government

[34] In a formal sense, this is identical with the error of the banking-school view in taking an absolute interest rate, rather than the relation of the actual rate to the natural rate, as the relevant measure.

[35] We note that more would be involved in "adjusting" to continued deflation than simply writing escalator clauses into contracts. Fixed capital goods would have to be paid for at cost at one price level with returns realized at lower price levels. It is not clear that there is any adequate way of nullifying this. On usual assumptions, it seems to imply a shift to a lower real profit rate and a smaller equilibrium stock of real capital (and larger real money stock), which would involve a prolonged and painful adjustment, and—on reasonable technological assumptions—could permanently depress the growth rate.

securities and so induced a mild decline in velocity" (p. 598). The combination of events "apparently undermined the widespread belief in the inevitability of sharp price rises, without however producing a return to earlier anticipations that prices were destined to fall" *(Ibid.)*.[36]

This picture seems badly out of focus. The events of the second half of 1950 did not comprise an ordinary speculative boom, but an atypical upsurge of spending based largely upon waves of anticipatory consumer spending and business inventory accumulation. The first wave of scare buying subsided in a matter of weeks, and it is reasonable to believe that the second one would also have done so, Accord or no Accord. The stabilization of prices in early 1951 reflected a number of factors: the anticipatory and temporary nature of much of the earlier spending; reversal of the over-shoot in the rise of materials and commodity prices; large tax increase; and temporarily restrictive shift in fiscal policy. To neglect these things and to ascribe so much to an alleged abrupt shift in the perceived liquidity of government securities seems to strain the facts badly.

It may be argued that what the authors have done is to leave out of account some important factors and ascribe to unmeasured variables—price expectations and perceived liquidity of government securities—the values required to fit the included facts into a picture that suits them.

C. The Recent Role of Monetary Policy

The Friedman-Schwartz chronicle of postwar monetary developments ends with 1960. It is reasonable to ask how their interpretation of recent events stands up in 1964.

My answer is that their interpretation seems quite misleading. In their view, "the outstanding monetary feature of the twelve years after the price peak in 1948 is the unusually steady rate of growth of the money stock" (p. 592). They find it necessary to seek an explanation as to why "the rate of change in the money stock was so highly stable" (p. 637). They see part of the explanation in the alleged fact that the Federal Reserve had come to pay more attention to the behavior of the money supply, a contention supported by quotations from Chairman Martin of the Board of Governors (pp. 629-630). This interpretation seems to call for compliments to the Federal Reserve and for confidence in the future conduct of monetary policy.

A more searching view is less optimistic. While System spokesmen have made some references to the behavior of the money supply, they also have given growing attention—in terms startlingly reminiscent of thirty years ago—to the old slogans of prevention of "redundant money," the dangers of "excessive ease," and the moral necessity of "defending the dollar."[37] Monetary policy has contributed to causing all of the postwar recessions, and may be the major cause of the the persistent high unemployment of the past few years. Federal Reserve System spokesmen made statements contributing to the financial stringency of early 1953 and policy checked growth in the money supply (demand deposits and currency). Monetary policy thus shared (with fiscal policy playing a major role) in causing the recession of 1954. All of the other recessions, 1949, 1958, and 1960 were characterized by prior and current

[36] This interpretation is "supported" by the behavior of the difference between yields on bonds and stocks, "which may be regarded as an index of the expected rate of change of prices" (p. 599). Applying this "index" at other times seems to lead to some highly improbable inferred price expectations.

[37] See my *Full Employment or Stagnation?*, Chapter 12.

absolute reductions in the money supply. The most severe monetary contraction, from mid-1959 through mid-1960, assuredly contributed (again sharing the honor with fiscal policy) to causing the premature recession of 1960, which dates the beginning of the recent era of economic slack. This monetary pressure was not subsequently offset, so that the monetary position of the economy in 1964 remains restrictive and is a reason why the above-trend increase in GNP required to move back towards full employment has not been forthcoming.[38] If monetary policy has probably been a major cause of the economic instability and slack that have marred the recent record of the U.S. economy, it merits neither compliments nor confidence.

How are the two interpretations to be reconciled? A part of the answer is, again, the difference in concept of money. Time deposits increased more steadily than demand deposits and currency, and were not responsive to those changes in policy just characterized as contributing to instability and slack. Thus, the Friedman-Schwartz concept of the money supply presents a more favorable picture than the orthodox one. This issue becomes even more crucial after 1960, as time deposits in commercial banks grew rapidly while demand deposits and currency increased only modestly. By one measure, thus, monetary policy has been unusually expansive and not a cause of the continued GNP gap; by the other, it has been restrictive and is a presumptive cause. For reasons considered above, the orthodox concept of money seems the relevant one in this connection.[39]

Again, the other element in the reconciliation of interpretations involves the question of standards. On a formal standard as to which line on the chart looks straighter, recent monetary policy may look good, at least as compared with experience including the Great Depression and the 1921 deflation. But when the detailed timing of changes in money behavior is considered, policy does not seem to meet the standards that it is reasonable to impose in the light of modern knowledge and present-day needs. This seems the more important reference point.

IV. *Conclusions*

The ambitious Friedman-Schwartz interpretation of United States monetary history provides a test of the state of monetary theory. What the test discloses is that the theory is in a terribly unsatisfactory condition.

This is indicated, for one thing, because the interpretation arising from this extraordinarily able and thorough study will be seen by many students of the subject as quite fallacious and by others, including the present writer, as wrong in important respects. That such great disagreement among students exists even on basic questions testifies to the unhappy state of monetary theory.

The unsatisfactory condition of theory is indicated, even beyond this, because the findings of the authors are so vague on important matters, and they must be thoroughly unsatisfactory even to them. If the crucial issue is identification of the independent variable, or determination of *what caused what* in the monetary equation, is it not pathetic to wind up with only a loose pronouncement about

[38] *Ibid.*, Chapter 11.

[39] The issue here is not one of a narrow analysis versus a broader one including time deposits. The orthodox treatment would include time deposits with other liquid assets. Doing this discloses that monetary growth has been inadequate and growth in total liquid assets has done nothing to offset this. It is only by throwing time deposits in with money and neglecting other liquid assets that one reaches the other conclusion.

monetary change being sometimes a senior and sometimes an equal partner?[40]

One might conclude, to put a pessimistic face upon matters, that among the things this book should teach us are these: (1) The generally accepted anti-monetary interpretation of the Great Depression—the starting point of most modern macroeconomic theory—is ridiculously in error. (2) Beyond the barest outline, the interpretation of the economic role of money turns on conceptual choices on which there is not now agreement, nor agreement as to the direction in which agreement should be sought. (3) On the most basic problem, which involves the central problem of induction—how to infer from past events relations that will hold in the future, or "causal relations"—the methodology of common use is quite inadequate.

Perhaps one conclusion on which wide agreement can be reached is that constructive work on monetary theory is badly needed, and that it must start from the methodological foundations.

[40] "Mutual interaction, but with money rather clearly the senior partner in longer-run movements and in major cyclical movements, and more nearly an equal partner with money income and prices in shorter-run and milder movements—this is the generalization suggested by our evidence" (p. 695).

► PAUL S. ANDERSON

A Note on Time Deposit Theory and Practice

The recent rapid growth of time deposits has aroused interest in this savings medium to an extent reminiscent of the 1920's. But the focus of attention now is different from that of 40 years ago. The pressing time deposit problems then were, first, the alleged switching of demand to time deposits in order that the holding bank would have lower required reserves and thus would escape monetary restraint; and second, the vigor of the competition for these deposits which supposedly caused banks to pay too high rates and to "reach" for unsafe assets. Now the chief issues are, first, the question whether time deposits are money, and what this signifies for monetary policy; and second, the competitive position of banks, especially with regard to "tax equality" and reserve requirements.

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I. *Are Time Deposits Money?*

Time deposits, which in this paper are treated as including savings deposits, might be considered money, because they are so similar to demand deposits. They are liabilities of the same commercial banks; they are invested by the banks in many of the same sorts of assets; they can be changed into cash (currency) just as easily; and many individuals view and treat time deposits in much the same way as demand deposits. It is true that 30 days' notice can be required before the withdrawal of time deposits, but this procedure is seldom used. In theoretical terms, time deposits are stores of value just as demand deposits are.

Why then should time deposits not be considered money? The most compelling reason is that time deposits do not possess that one property that distinguishes the asset item called "money" from all other asset items; namely, the ability to serve as a medium of payments. Money is the only asset from which the payments stream can arise. The availability of such a payments stream enables specific items of value to be transferred from old owner to new owner without the need for barter. Time deposits and Treasury bills are among such specific items which meet money in exchange. If time deposits are called money, the word money simply loses its distinctive meaning as the medium of payments. The practical importance of the definition of money is that effective restriction of the flow of payments is accomplished by restricting the money supply rather than by restricting the amount of other financial assets.

One source of confusion arises from the fact that, although time deposits cannot perform the money function of demand deposits, demand deposits can perform the savings function of time deposits. When a holder maintains an idle demand balance, that balance is the same as a time deposit, except that no interest is earned. Because such demand deposits are inactive, they lower the average turnover rate of demand deposits. Of course, when such savings demand deposits are shifted to time deposits, the turnover rate of demand deposits rises.

II. *Reserve Requirements*

If time deposits are not to be regarded as money, then the question arises as to what difference this makes with regard to reserve requirements. The answer involves the functions of reserves and reserve requirements.

At the time of the passage of the Federal Reserve Act in 1913, reserve requirements were looked upon as a safety factor, although it was not precisely clear how they were expected to function in this capacity. It may have been thought that they would give depositors confidence and thus prevent runs, or that they would serve as a ready reserve which would handle runs of small size. In any case, reserves were available to cover only a fraction of deposits, and the fact that, say, 10 percent of deposits were well backed still left 90 percent to be provided for by other means. Furthermore, once reserves were used for deposit withdrawal, the bank would be deficient in reserves.

Because fractional reserves did not provide complete safety, ideas about the functions of reserves and reserve requirements underwent change during the 1920's; they began to be thought of as a monetary tool which allowed the Federal Reserve to control the size of the money supply. Safety was to be provided by secondary reserves or liquid assets, such as short-term government securities and open market paper, as well as by a capital cushion. The Federal Reserve could, in addition, supplement reserves of banks in need through the discount window. This control concept of reserves continues to be generally accepted at present.

In some ways there is no conflict between the safety and control functions of reserve requirements. Safety and control are basically synonymous terms in many respects. In the middle 1800's, for example, many state banks issued notes with little or no control, or limit, and these notes subsequently fell in value, with discounts ranging up to 100 percent. National bank notes, on the other hand, were controlled by a limit placed on their issue, at 90 percent of U.S. Government bonds deposited with the U. S. Treasury. As a result, national bank notes have never suffered a discount since their inception in 1864.

The tie between the safety and control functions of reserve requirements with reference to deposits has several aspects.

Reserve requirements serve as an instrument for control of the money supply and thus safeguard the value of deposits. They also operate to limit the extension of credit by individual banks, and in this way preserve confidence in the quality of the bank's assets and in its ability to meet withdrawals on demand. Loss of such confidence would imperil the safety of the bank's deposits. A good case can be made that our past banking crises have generally resulted from improper or inadequate control of the money supply. The troubles of 1932-33 were quite complex, however, and the real trouble may have been the inflation of World War I, which distorted values, as discussed below.

If it were accepted that the function of reserve requirements is to serve as a fulcrum in controlling the money supply, how would time deposits be affected? Before this question is discussed, it is necessary to consider the basic function of time deposits.

III. *Function of Time Deposits*

For the individual saver, time deposits are simply a place for the lodgment of savings. For the bank which receives them, time deposits are a "raw material" which has been bought by paying interest, and, if properly employed through investment, can earn a profit for the bank. Viewed from the broad economic standpoint, time deposits are a channel through which savings of individuals are invested, resulting in an interest gain for the saver and added productive capital for the economy. Banks thus perform the same function with respect to time deposits as do a wide variety of institutions, such as other thrift organizations, life insurance companies, investment companies, trust departments, and pension funds.

As an intermediary form of ownership, time deposits do not basically create anything; they are simply a technique whereby numerous small depositors can own parts of assets; for example, mortgages and bonds, which they would have trouble acquiring otherwise. In this respect they are practically identical to shares in investment companies (mutual funds). If the intermediary form of investment companies were ignored, the basic situation would be that of shareholders owning the stocks in the investment company's portfolio. Time deposits are, of course, different in form from mutual funds in that they are fixed value, creditor claims, while mutual fund shares are ownership claims whose values fluctuate with stock prices.

If we accept the view that time deposits are only a bridge in financial ownership, reserves may be thought of as a tool to control or limit one or more of the various steps connecting the basic asset, which is owned, and the final owner (the time depositor). These steps comprise the following magnitudes: (1) savings of funds by savers; (2) savings put into time deposits; (3) amount of assets purchased by banks with time deposits; and (4) total amount of issuance of such assets (mainly mortgages and bonds).

Since reserve requirements apply only to the time deposits of commercial banks, they are effective only with respect to (2) and (3). To the extent that savers in (1) buy the (4) assets directly, or deposit their savings in other thrift institutions, they can escape reserve requirements control.

There may, however, be equity arguments for reserve requirements against time deposits in commercial banks. It is necessary to hold vault cash and other reserve balances against time deposits. Mutual savings banks, for example, currently hold about two percent of their assets in such form. If no reserve were required against time deposits in commercial banks, those banks with a large

volume of time deposits would be able to count this "necessary" cash as a reserve against demand deposits.

Another argument often advanced for maintaining reserve requirements against time deposits is that without them banks might induce demand depositors to shift their balances into time deposits so that the bank could escape the reserve requirement on the demand deposit. The weakness in this argument, as practical bankers well know, is that it would not pay the bank to do this except in some unusual situation.[1] A bank would have to earn 20 percent on the investment of the reserves it formerly held against a demand deposit (at a 15 percent reserve ratio), in order to pay three percent on the time deposit to which it was transferred. The only kind of demand deposit that could be shifted is one that was not being used—an idle deposit. Since this type of deposit requires no servicing, it is already very profitable to the bank, even if it does carry a 15 percent reserve. This is precisely the type of deposit that the banker hopes does not shift over to the time side. Some depositors will, however, do the bank the favor of transferring an idle demand deposit into a non-interest bearing time certificate for the period in which they will not need the deposit, in order to save the bank some reserves.

IV. *Time Deposits and Capital Requirements*

Apparently unresolved are the questions of the amount of capital that should be behind time deposits; and whether demand or time deposits should have the bigger capital cushion. If the amount of required capital depended on asset composition, then time deposits should have the larger capital base because time deposits are usually both more fully invested and in riskier assets than demand deposits. As a practical matter, however, it has been traditional to require a smaller amount of capital backing for time deposits than for demand deposits. When banks are classified according to percentage of time deposits, the higher time percentage groups have the lower capital ratios.[2]

This problem could be resolved if reference could be made to a principle or theory underlying capital requirements. But such a principle has not been developed in any clear form in American banking. The approach to capital requirements in this country, like many similar problems of bank regulation, has been strongly affected by the presence of the dual banking system. When one of the supervisory agencies wants to raise required capital ratios on banks under its jurisdiction, it may be discouraged from doing so by the fact that the affected banks could be put at a competitive disadvantage. But other countries, such as England, where dual banking is not an issue, have not developed a clear-cut capital requirements principle either; the bank capital problem has been dealt with simply by practice and tradition.

V. *Deposit Growth: Time vs. Demand*

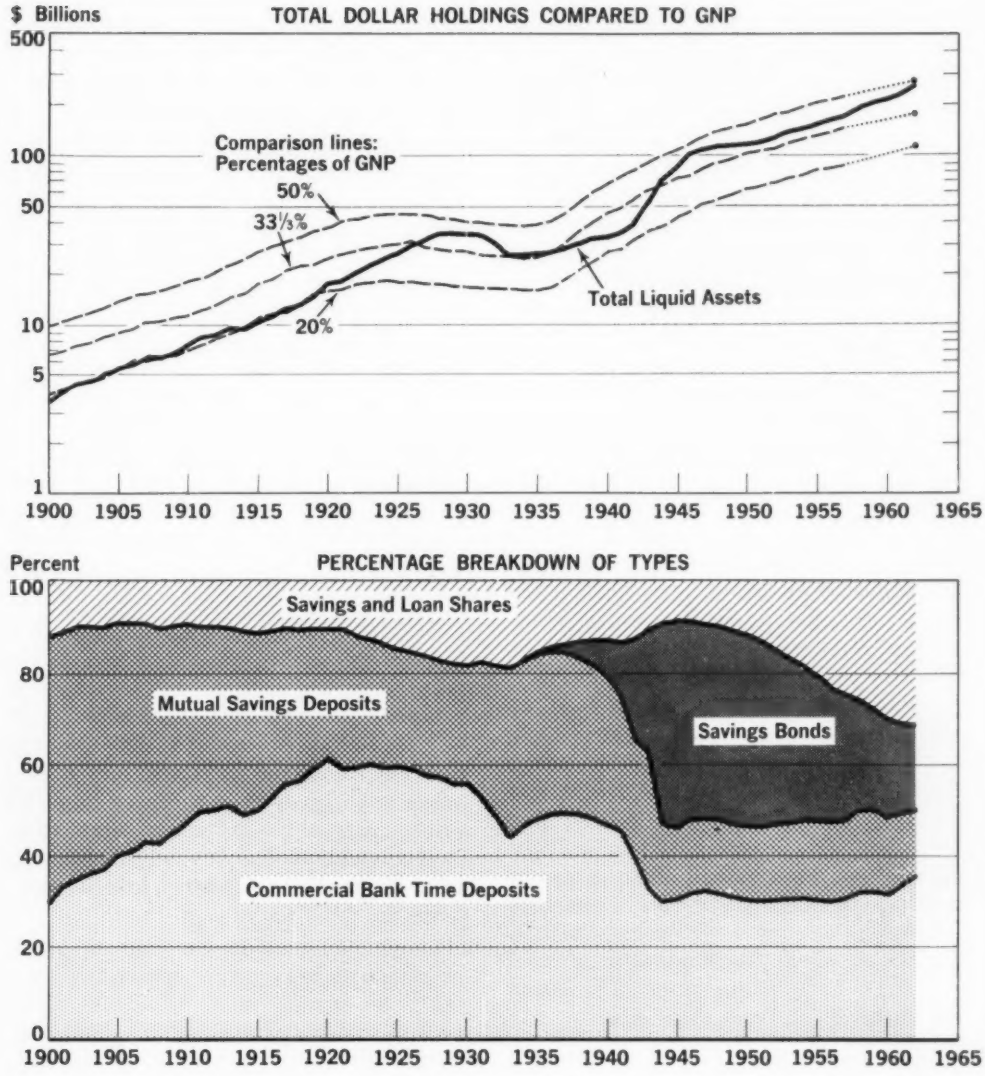
In the postwar period, time deposits have grown much more rapidly than demand deposits; since 1946 time deposits have tripled, while demand deposits have risen only about 50 percent. Whether this more rapid time deposit growth can be expected in the future is by no means certain. The future levels of time as well as demand deposits depend on a variety of factors, but there may be some boundaries to the levels of time and demand deposits relative to such magnitudes as total payment flows or GNP.

[1] See Joseph Ascheim, "Why Control Time Deposits?" *Southern Economic Journal*, XXVII, July 1960, p. 31.

[2] See, for example, Paul Horvitz, "Economies of Scale in Banking," in *Private Financial Institutions* (Commission on Money and Credit supporting papers), Englewood Cliffs, N. J.: 1963, Tables I-6, I-7, I-8, and pp. 28-30.

Chart

Liquid Asset Holdings of Individuals 1900-1962



Note: Excludes holdings of demand deposits and currency. The lines showing various ratios to GNP are based on 10-year moving averages of GNP with a projection from 1957 to the actual 1962 level.

Sources: Federal Reserve Board and R. W. Goldsmith, **A Study of Saving in the U.S.**, Princeton, New Jersey, Princeton University Press, 1955.

Time deposit levels depend to a large extent upon their relative position as contrasted with their chief substitutes: mutual savings deposits, savings and loan shares, and savings bonds. In total, these four liquid savings forms have generally been rising as a ratio to GNP, as shown in the top panel of the chart on page 385. Currently this ratio is almost 50 percent, and some further rise seems possible. Time deposits now are just over one-third of the total, as shown in the bottom panel of the chart, or about 17 percent of GNP. While time deposits may rise further as a percentage of these forms of liquid assets, they probably will not show the same rate of rise in coming years as they have since 1960.

Demand deposits, on the other hand, have grown less rapidly than GNP in recent years. They grew much more rapidly than GNP during the big depression and World War II, and their rate of use (velocity) fell. Since World War II their velocity has risen sharply, and their level as a ratio to GNP has fallen. It seems unlikely that this rise in velocity can continue indefinitely, but the current, continuing sharp rise does not seem to indicate that it will stabilize soon. Indeed, further rises in demand deposit velocity seem likely despite the fact that in 1962 the ratio of demand deposits adjusted to GNP was down to 21 percent, which was the floor reached during the 1920's. But when demand deposit velocity does stabilize, these deposits will begin to rise in rough proportion to GNP.[3] When that occurs, the two types of deposits will be growing at about the same rate.

VI. *Sources of Time Deposits*

From where do time deposits come—from cash, demand deposits, the stock market, savings, other thrift institutions, Treasury bills? Two statements can be made at the outset: actual deposit into a time account is made in money, cash or check, so that the immediate physical source of time deposits is always money; and, the money deposited is saved wealth, so, functionally, a time deposit always represents saving. Both these simple statements contain complexities, however.

There are three steps in the formation of a time deposit. First, the depositor has to own wealth. Second, he must proceed to place it into a time deposit. To do this he "cashes" his wealth, if it is not in money already, and makes the deposit. Third, the bank will acquire a loan or investment with the deposit so that it earns a return. This operation is a circular process—the public brings money into a bank and the bank gives the money back to the public in acquiring a loan or investment. If the bank did not return the funds to the public, the entire process would break down, just as manufacturers could not continue to pay wages if they did not sell goods.

The stock market cannot be the source of time deposits, since banks do not acquire stock from the public.[4] Stock sales represent mere transfers among the public and do not add to total deposits. If the new owner of the stock had sold a tax-exempt bond to a bank to buy the stock, however, the entire transaction might be classified as the public's transfer from the tax-exempt market to a time deposit.

Up to this point in the analysis, a deposit into a time account has been identical to the placing of saver's funds into a savings and loan association. A difference arises, however, when demand deposits are brought into the picture. A savings

[3] For a historical record of the relation of demand deposits and currency to GNP, see the *Historical Chart Book 1963*, Board of Governors of the Federal Reserve System, p. 66.

[4] An exception to this rule occurs when banks extend stock market credit (a point owed to Parker Willis, a colleague at the Federal Reserve Bank of Boston).

and loan association lends out the funds it receives and holds in the form of a demand deposit with a commercial bank, but a commercial bank wipes off a demand deposit in the process of debiting it and crediting the time deposit. With the reduction in demand deposits, however, commercial banks find themselves with more excess reserves so they can extend loans or buy investments, and thereby create new demand deposits to replace the old. Thus, the net result of savers' placing funds into time deposits is the same as if they placed funds into savings shares; an old demand depositor now has a liquid savings asset, and some new owner has the demand deposit. Despite this similarity on the savings side, we should not overlook the fact that commercial banks have unique powers on the demand deposit side, where they can extend loans and buy investments without inflows of funds from the public, as long as the Federal Reserve System supplies reserves.

In 1962, time deposits had a record growth of about $15 billion. Of this, perhaps $1 billion was a deposit of currency from hoards, leaving $14 billion accounted for by demand deposits which were extinguished in the process. But demand deposits rose over $1 billion, net, during the year, which means that about $15 billion of net new demand deposits were created. Since the new replacement demand deposits must have been obtained by depositors in need of funds, thus replacing idle funds, the turnover rate of demand deposits rose substantially during the year to a new postwar high.

VII. *Time Deposits and Liquidity*

Since time deposits are not money, they cannot be the direct source of the spending stream. But a popular current idea is that liquidity of the various sectors of the economy does instigate spending, and time deposits add to liquidity.

There can be some scepticism about the stimulative effect of liquid assets, however. While historically liquid assets have actually grown a little faster than gross national product, they have usually shown their biggest gains in recession years when spending has lagged. There is also a question as to what liquidity signifies. Although an individual time depositor can switch to a demand deposit if he desires, any wealth owner can get money simply by selling some of his wealth. It would be an abnormal time indeed if no buyers were available. But all time depositors cannot transform their time deposits into money at one time, unless the Federal Reserve System is prepared to supply an unprecedented and abnormal amount of bank reserves. Thus time depositors and other wealth owners are in roughly similar positions—both holders can "cash in" their wealth if they do so on an individual basis, but neither group can if everyone tries to do so at the same time.

The thought behind the liquidity hypothesis seems to be that owners of liquid assets feel freer to spend as a result of the acquisition of these assets. But a new owner of a time deposit had to have the wealth in hand before he made his deposit in a time account. If his wealth were in the form of money, it is hard to see how this shift to a time deposit will raise his spending. If the shift were from a Treasury bill or tax-exempt bond, it is sheer conjecture what the depositor means to accomplish. For example, he may be speculating on interest rates, or he may not want to be bothered by the periodic "rollovers" of Treasury bills.[5]

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[5] For an excellent elaboration of the theme that use of the term liquidity often obscures rather than clarifies, see Arthur L. Broida, *Liquidity as a Variable in Monetary Analysis* (multilithed). Dissertation, University of Chicago, June 1963 (available in Federal Reserve libraries).

VIII. *Optimum Rate on Time Deposits*

A very original analysis gauging the effect of interest rates paid on growth and profitability of time deposits has been put forth by Paul Smith.[6] Smith's conclusion is that, based on postwar experience, banks, for maximum profit, should not pay more than 2.65 percent annually on time deposits if they earned 6 percent on investments.

A criticism of Smith's analysis is that it assumes the banking industry could (and should?) act as a monopoly with respect to time deposits. In reality, banking is competitive both within the industry and with other industries, so monopoly analysis is not applicable. Any industry would be more profitable, of course, if it were able to behave as a monopolist, paying low for its resources and charging dear for its output or service. Time deposit rates are relatively well dictated by competition, however, and those banks that do not want to pay a competitive rate find their time deposits eroding.[7]

IX. *Time Deposits in the Banking Crisis*

One statement frequently made in describing how developments in the 1920's led to the banking crisis of 1933 is that excessive competition for time deposits induced banks to pay too high rates for these deposits and caused them to "reach" for unsound assets. This statement is briefly examined here, not for the purpose of resolving the riddles of that period, but simply to indicate some doubts.

If banks paid too high rates on time deposits (and on demand deposits as well), they must have been unprofitable and their capital positions must have been impaired. But, in fact, banks were very profitable, in the aggregate, during the 1920's, and their capital ratios were not only substantially higher than at present but also rising.[8] Furthermore, banks did not have total disregard for earnings; they actually did reduce average rates paid somewhat over the decade.[9] Thus it may be questioned whether excessive competition for time deposits was the cause of weakened banks in that period.

The second charge was that the banks "reached" for unsound assets in order to get income to cover their sizeable interest expense. This charge can mean either that banks purchased poor quality, high yielding assets in preference to proper assets, or that they bought too many assets in total, thus forcing their purchases beyond legitimate standards. Unfortunately, there is a lack of clear evidence whether banks bypassed acceptable assets in order to purchase assets which were not up to proper banking standards. What the data do show, however, is that commercial banks maintained their holdings of U. S. Government securities at 10 percent of total earning assets from 1920 to 1929;

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[6] Paul Smith. "Optimum Rate of Time Deposits," *Journal of Finance*, December 1962, pp. 622-633.

[7] For the experience of banks in New England which paid non-competitive rates, see *Time Deposits in New England*, Annual Report of the Federal Reserve Bank of Boston, 1962, pp. 34 ff. This report also contains a cost analysis of time deposits, pp. 57 ff.

[8] See *Historical Chart Book 1963*, op. cit., p. 22; net profits as a percent of capital were as high then as at present even though capital ratios then were much higher.

[9] Unfortunately, interest on demand and time deposits was combined in the available data for years prior to 1927. If it can be assumed that the average rates on the two types of deposits bore the same relationship in years prior to 1927 as in 1927, the average rates at all member banks were as follows (in percent):

	1920	*1923*	*1927*	*1929*
Time deposits	3.47	3.45	3.34	3.33
Demand deposits	1.38	1.37	1.33	1.31

Based on Board of Governors of the Federal Reserve System, *Banking and Monetary Statistics*, Washington: 1943, Table 57, p. 262.

this performance is the more striking when it is noted that the supply of such securities was shrinking over this period so that banks increased their share of total U. S. Government securities outstanding from 15 percent in 1920 to 30 percent in 1929.[10] This seems to show that banks were making a real effort to acquire acceptable earning assets.

If banks acquired too great a volume of assets in total, the demand deposit function probably was closer to the root of the trouble. Demand deposits do reflect a net new monetary demand for earning assets. But individual commercial banks cannot be held accountable for the level of demand deposits, since each bank is expected to compete aggressively for its share of the total demand deposit pool. The size of this pool is determined, of course, by monetary authorities.

The basic difficulties of this period probably arose from the inflation of World War I, which was made possible by monetary expansion. This inflation set in motion upward revaluation of asset values, and the historical record suggests that once such trends begin they are likely to go too far as capital gains instigate expectation of further gains. Farm land values, especially in the grain belt, were first to show the effects of overvaluation, but the decline in agricultural prices started a deflation of these values in 1920. A number of midwestern banks became effectively insolvent right then, although many struggled on for several years before suspending payment. Urban real estate and land next became the object of speculation, but the crash of the Florida land boom in 1926 started a reversal in the trend. Additional banks were left with insolvent mortgages, however. Finally, interest turned to the stock market, which showed a tripling in values from 1925 up to the collapse of 1929. Time deposits had little part in the inflation and subsequent deflation of values which appeared to be primary factors in the collapse.

[10] U. S. Bureau of the Census, *Historical Statistics of the United States,* Washington, D. C.: 1960, pp. 631, and 664.

The Philadelphia Bank Merger Decision and its Critics

► EDWARD S. HERMAN

This article is focused on six issues raised in the PNB-Girard merger case and discussed in the Comments [1] on the decision [2] published in the first two issues of this *Review*. The article is to some extent a critique of these earlier comments, but it is hoped that an independent viewpoint emerges and that new light is shed on some of these questions.

No attempt is made here to analyze the important legal question of whether or not Section 7 of the Clayton Act was properly held to encompass the proposed consolidation of PNB and Girard.[3] The issues discussed below are (1) the appropriate product line or "line of commerce" in the PNB-Girard case; (2) the scope of the market for banking services, particularly as it pertains to the proposed bank merger; (3) the probable competi-

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[1] David C. Motter, "Bank Mergers and Public Policy," *The National Banking Review*, 1, Sept. 1963, pp. 89-100; Victor Abramson, "Private Competition and Public Regulation," *ibid.*, pp. 101-105; Deane Carson and Paul M. Horvitz, "Concentration Ratios and Competition," *ibid.*, pp. 105-110; Bernard Shull, "Commercial Banking as a 'Line of Commerce,'" *The National Banking Review*, 1, Dec. 1963, pp. 187-206.

[2] *U. S. v. The Philadelphia National Bank, et al.*, 374 U. S. 321 (1963); referred to hereafter as *"Decision."*

[3] My own view is that the Supreme Court was in error in extending the scope of Section 7 to cover a bank consolidation. I find Justice Harlan's dissent entirely persuasive on this point.

An excellent case also can be made that no authority over *any* kind of bank combination was conferred on the Federal Reserve Board or Department of Justice by Sections 7 and 11 of the Clayton Act. This is indicated by both the structure of the Act and its legislative history. Briefly, the authority to enforce the four substantive sections of the Clayton Act was conferred on the Board in Section 11 only "where applicable to banks, banking associations, and trust companies. . . ." The only place in the substantive sections of the Act where banks were mentioned is in Section 8, dealing with interlocking directorates. Section 7 is applicable only to "corporations engaged in commerce." In Section 8 banks were dealt with in paragraphs separate from "corporations engaged in commerce," and the provisions of the section were made applicable only to banks "organized or operating under the laws of the United States. . . ." This implies that Congress was basing its jurisdiction over interlocking bank directorates on its established and judicially accepted fiscal and monetary powers, not on its powers over interstate commerce. Since interlocking bank directorates were the prime concern of the legislators, after the Pujo Committee report, at least with respect to banks, it is anomalous that Congress voluntarily limited its powers over interlocking bank directorates to national banks while pushing beyond that as regards bank stock acquisitions. The solution to this dilemma was stated by Representative Carlin, a floor manager for the Clayton bill: "This bill does not deal with combinations relating to bank stocks." 51 Cong. Rec. 9603 (1914). For a more extensive analysis of this issue, see Edward S. Herman, *The Transamerica Case: A Study of the Federal Reserve Board Antitrust Proceeding* (Unpublished Ph.D. dissertation, University of California, Berkeley, 1953), pp. 35-57.

tive effects of the merger in the Philadelphia area; (4) the probable competitive effects of the merger in national and international markets; (5) the relative merits of applying to bank mergers the criteria of Section 7 of the Clayton Act or of the Bank Merger Act of 1960; and (6) whether final power over bank mergers should be left to the bank supervisory authorities.

I. *The Line of Commerce*

A crucial problem in antitrust cases is establishing the product-market complex within which the forces of competition may be expected to operate. A "line of commerce" relates to the product aspect of this complex. From an economist's standpoint, a meaningful line of commerce would be an output type which is sufficiently differentiated from other outputs in the minds of buyers to make other products appear distinctly inferior substitutes. The greater the magnitude of the "gap in the chain of substitutes," the greater the potential monopoly power consequent on an increase in the concentration of sellers of a given product.

Commercial banks produce many different types of output,[4] so that there are a considerable number of potential lines of commerce engaged in by this single institutional type. It is clearly possible for some of these lines of commerce to be engaged in solely by commercial banks, and others to be supplied by banks along with non-banking institutions. Where this is the case, the relevant producers (or "industry") will be confined to commercial banks for some products and will extend beyond banks for others. From the standpoint of rational application of economics to antitrust problems, it would be perfectly sensible to limit the relevant producers to commercial banks if the outputs which they supply uniquely (or almost so) are of substantial importance in their own right. With the industry so defined, of course, little could be said about the competitive impact of structural change in that industry on a line of commerce in which non-banking institutions were major producers.

The Government contended that the outputs of non-banking financial institutions could be disregarded in evaluating the proposed merger, because such institutions do not provide serious competition to commercial banks in major product lines, particularly in the provision of checking account facilities and unsecured short-term business credit. The Government argued before the Supreme Court that "commercial banking" was itself the most relevant line of commerce, because all large banks provide a wide array of interrelated services in competition with one another, and "the most important elements of the service of commercial banks are supplied only by them."[5] The District Court and the Supreme Court both accepted the view that commercial banking was a distinct line of commerce. The District Court laid stress on the interdependence of the various activities of commercial banks; the Supreme Court emphasized the uniqueness of bank services, some of which were alleged to be "so distinctive that they are entirely free of effective competition from products or services of other financial institutions; the checking account is in this category."[6]

Messrs. Shull, Carson and Horvitz, and Motter are almost uniformly critical of the Government and Court conception

[4] In one estimate as many as 70 distinguishable services were said to be provided by large commercial banks. Sidney M. Robbins and Nestor E. Terleckyj, *Money Metropolis*, Cambridge: Harvard University Press, 1960, p. 2.

[5] *United States v. The Philadelphia National Bank, et al., Brief for the United States*, p. 31.

[6] *Decision*, p. 356.

of the line of commerce appropriate to the merger case. But they tend to reject banking as a meaningful industry, not by explicitly denying that a large body of commercial bank customers is without effective substitutes for strategic banking services; they dispose of it more or less by implication on the grounds that other things, of somewhat uncertain importance, would be taken into account in an ideal treatment of these matters.

Consider the question of provision of demand deposit facilities. Carson and Horvitz note that commercial banks have no direct competition from other financial institutions in handling demand deposits, but they go on to point out that currency, travelers checks, register checks, and postal money orders are substitutes for demand deposits. Do they draw any conclusions as to whether these substitutes for checking accounts are sufficiently important for the bulk of demand deposit customers to limit seriously the potential monopoly power of commercial banks in this area? They do not: they conclude their discussion with the not very helpful statement that an appropriate economic analysis would take account of the substitutability among financial services.[7]

Shull argues that demand deposits are held as a store of wealth, as well as a means of payment. Insofar as demand deposits serve the store of wealth function, they have important substitutes, and even active balances can be utilized more efficiently if the pressures are great. He calls attention to the economizing of demand deposit balances which took place under the tight money conditions of the last decade. Shull continues, "If bankers find they are losing demand deposits, or not gaining demand deposits at a rate comparable to the growth of their communities, they will find little comfort in recalling that they have a monopoly of deposits in their 'means of payment' function."[8] This is a rhetorical statement of little value in evaluating the implications of exclusive commercial bank provision of checking account facilities to the public. If a rise in price of a monopolized wonder drug induced doctors and patients to economize in its use, and even to replace it with other drugs in some uses, its producer might still "find comfort" in his generally strong monopoly position.

Shull's reference to the possibility of bankers finding that "they are losing demand deposits," points to another flaw in his discussion. If we are evaluating demand deposits as a distinctive *line of commerce*, it is not legitimate to count losses of such deposits to other commercial banks as relevant evidence of limits on bank monopoly power. Furthermore, if an asset holder shifts from demand deposits to a savings bank account, or to a claim against any other private financial institution, or to market assets, commercial bank demand deposits will not ordinarily be reduced. It is true that the demand deposits of individual banks may be affected by such shifts, but the extent to which this is true will depend on the commercial banking structure, not on the availability of substitutes for demand deposits.

In order to consider properly the issue of demand deposits as a line of commerce, we should ask: If commercial banking were completely monopolized (or were monopolized in Philadelphia and the three adjacent Pennsylvania counties), would this single bank possess substantially increased monopoly power in fixing service charges in its demand deposit function, or would this be prevented by the substitutability of currency and other asset alternatives? Unquestionably monopoly power would be significantly enhanced. The gap in the

[7] Carson and Horvitz, *op. cit.*, p. 109.

[8] Shull, *op. cit.*, p. 198.

chain of substitutes as between demand deposits and other assets, for both payment and wealth-holding purposes, is substantial. It would seem evident (and it is not seriously questioned by Shull) that substitutes for demand deposits in carrying out the payment function are inadequate for many depositors now using checking accounts.[9] The case with respect to demand deposits held as a store of wealth is more complicated and obscure, but people holding wealth in this sterile form are doing so either because of ignorance and inertia, or (more important) because they wish to remain completely liquid to be able to meet contingencies or to take advantage of expected future changes in asset prices. If these motivations are predominant, then it is unlikely that demand deposits held as a store of wealth will be very elastic to changes in service charges on checking accounts. This conclusion is reinforced by the fact that banks can discriminate in service charge adjustments by size of customer and type of service (and thus, to a degree, according to the availability of alternatives).[10]

Motter, Carson and Horvitz, and Shull are also highly critical of the Court for overlooking other sources of short-term business credit. Motter mentions insurance companies as the overlooked competitors;[11] Carson and Horvitz are particularly attentive to trade credit; and Shull stresses the growth of finance companies and open market credit. Again, none of these authors come to grips with the question—are these alternatives sufficiently important so that a significant body of bank borrowers would not be affected by a reduction in bank competition?

It is a well-known fact—unmentioned by Carson and Horvitz—that trade credit is frequently more expensive than bank credit, and is therefore regarded by those with the option of bank borrowing as a distinctly inferior alternative. It is also well established, and reiterated by members of the industry and the banks, that finance companies mainly lend to a special high risk small borrower whom banks tend to avoid.[12] In the Federal

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[9] A major witness for the defense, Dr. W. Carlton Harris, a Philadelphia banker and Professor Emeritus of Banking, testified as follows:

"Q. And for the services which the businesses require from the commercial banks, is there any adequate substitute?

"A. For some of the services, yes. For others, for demand deposit services, there is, in my opinion, for the businessman no adequate substitute." *Transcript of Record* (hereafter "R."), p. 1433.

[10] Shull mentions price discrimination in a footnote, but he does not apply it to checking accounts or the banking business in general. Shull, *op. cit.*, p. 198, n. 55.

[11] Motter refers to insurance companies as competitors for "industrial and commercial loans," not necessarily short-term business loans. These institutions undoubtedly are competitors of commercial banks for the loans of large firms, but they tend to service loans of a different maturity. In the merger application of PNB and Girard, the competition afforded by insurance companies is described as follows:

"It is difficult to measure the competition that these institutions provide for commercial banks. In general they may be viewed as alternative sources of funds for corporate borrowings. This is particularly true of large loans by large corporations, which Philadelphia insurance companies, by virtue of their size, are able to provide. However, it is probable that actual competition by insurance companies is not significant. Long-term borrowings have tended to gravitate toward the insurance companies while commercial banks are more active in the field of short-term loans." (*Application for Approval to Merge . . .*, p. 95.)

[12] The Application and testimony in the record in the PNB-Girard case barely mention commercial finance companies; the Application does, however, discuss factors, an institutional type closely related to commercial finance companies, as follows:

Reserve System study, *Financing Small Business*, commercial finance companies and factors are described as follows:

> Their customers are estimated to number in the neighborhood of 15,000 business firms [whereas in October 1957 member banks had outstanding to small business 685,000 individual loans]. The clients of commercial finance companies and factors, by and large, are firms whose creditworthiness is such that they find it difficult to secure bank loans in the amounts needed. Generally, the form of credit extended by commercial finance companies involves substantial handling costs and above-average risk, so that the rates which they charge for their services are considerably higher than rates applicable on bank loans. . . . Commercial financing and factoring are particularly significant in a study of small business financing because credit is made available to small businesses that do not have access to bank credit or to the markets for equity and long-term debt funds.[13]

Shull handles this by saying that "It could be argued that these other institutions are operating in a separate market—the higher-risk small loan market. But, in actuality, they have been chewing away at a larger loan market which formerly had been dominated by commercial banks."[14] This is a questionable mode of expressing the facts of the case—the "It could be argued . . . But, in actuality, . . ." makes it sound as if the bulk of finance company business is competitive with bank lending, which is not so. The "chewing away" is still a fringe aspect of the commercial finance business, and the qualifications required by the growth of this sector are still quite small.

After noting that commercial banks now meet "a sizeable proportion of the needs of business for short-term funds,"[15] Shull concludes that "Given the trend in the short-term business loan market, it hardly seems safe to classify it, *a priori*, in any one particular local area, as a market in which commercial banks 'have little effective competition.'"[16] Why the *trend* in the market should be more important than the *level*—which clearly indicates commercial bank predominance—[17] is not shown. Furthermore, Shull does not establish that there is a trend away from the commercial bank as a supplier of short-term business credit, and certainly not for small businesses whose access to the open market is indirect. He seems to be relying heavily on Selden's finding of a rapid expansion in the commercial paper market in the last decade. But Selden also shows that the number of borrowers in the commercial paper market declined fairly steadily, from 4,395

"There are at least a dozen factoring companies with main offices in the service area. While no statistics are published it is believed that their outstanding loans aggregate from $12,000,000 to $15,000,000. However, because of the nature of the risks their business does not compete significantly with the credit business of commercial banks." (*Application for Approval to Merge . . .*, p. 97.)

[13] Federal Reserve System, *Financing Small Business*, Report to the Committees on Banking and Currency and Select Committees on Small Business, U. S. Congress, 85th Cong., 2d Sess. (1958), pp. 362 and 450.

[14] Shull, *op. cit.*, p. 203.

[15] *Ibid.*, p. 202.

[16] *Ibid.*, p. 203.

[17] "Small manufacturers seeking short-term funds also approached shareholders and officers of their own companies, trade suppliers, finance companies, factors, and others, but the extent of dependence on these sources was very small compared with their dependence on commercial banks. This was generally the case among medium-size companies also. Among large companies, the only significant type of short-term financing other than commercial bank loans was the sale of commercial paper, and this was done principally by large companies in the food, tobacco, and textile industries." "Small Business Financing: Corporate Manufacturers," *Federal Reserve Bulletin*, Jan. 1961, p. 20.

in 1920 to 349 in 1961, while the average size of borrowing between 1920 and 1961 was rising from $255,000 to $4,481,000.[18] Selden also notes that "Except for finance companies, every major group of borrowers has declined numerically since 1922."[19] Clearly, direct use of the open market by smaller commercial and industrial borrowers has been subject to a *falling* trend.

Since most of the expansion of commercial paper is accounted for by sales finance companies, which compete with banks almost exclusively in the financing of durable goods purchases (largely motor vehicles) by consumers and dealers, it is hard to see how this can be regarded as having major implications for the short-term business loan market. The "competitive threat" which such development presents to banks is the threat of alternatives available to specialized groups of large borrowers; the smaller business borrowers remain heavily dependent on commercial banks.[20]

It should also be noted that Shull does not say that commercial banks have substantial effective competition in the Philadelphia area; he merely says that it would not be safe to say *a priori* that they do not. The implication is that the Court's statements on this matter were *a priori*. This disregards the fact that the Court's conclusions were presumably based on an extensive record in which these alternatives were considered at numerous points.

In conclusion, it is reasonable to regard commercial banks as sufficiently distinctive both in range of services rendered and in services uniquely offered to constitute a line of commerce, or a meaningful "industry." This follows mainly from their unique position in providing checking account facilities to the public and their special importance in making short-term credit available to business—particularly small and medium-size business. There are other services rendered by commercial banks in which their special position might justify ignoring outside competitors (e.g., the provision of personal trust services), but these two seem clearly in this category. And they are sufficiently important to justify looking at commercial banking as a distinct industry, although overlapping with other industries in many of its activities.

II. *The Market for Banking Services*

In considering the appropriate "section of the country" the Supreme Court stated:

> The proper question to be asked in this case is not where the parties to the merger do business or even where they compete, but where, within the area of competitive overlap, the effect of the merger on competition will be direct and immediate . . . . This depends upon "the geographic structure of supplier-customer relations."[21]

The Court recognized that designation of any specific area would be arbitrary and imperfect, but it concluded that, since

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[18] Richard T. Selden, *Trends and Cycles in the Commercial Paper Market*, Occasional Paper 85, National Bureau of Economic Research, 1963, pp. 8 and 16-17.

[19] *Ibid.*, p. 34.

[20] Shull also criticizes the Court because "existing conditions are actually quite different from those indicated by the Court. Large finance companies and businesses are no longer dependent upon commercial banks for the bulk of their funds." (*Op. cit.*, p. 202.) The Court seems to show adequate awareness of these matters, however, in its footnote statement: "The critical area of short-term commercial credit, see pp. 4-5, *supra*, appears to be one in which banks have little effective competition, *save in the case of very large companies which can meet their financing needs from retained earnings or from issuing securities or paper.*" (*Decision*, pp. 356-357, n. 33, italics added.)

[21] *Ibid.*, p. 357.

banking is predominantly a local business, servicing individuals and businesses in the vicinity of the bank who would find it inconvenient to go elsewhere, the four-county area in which the merging banks do most of their business is the relevant market area. The Court acknowleged that banks outside the four counties may afford effective alternatives to customers within it, but it argued that "competition from outside the area would only be important to the larger borrowers and depositors. If so, the four-county area remains a valid geographical market. . . ." [22]

The Court's position on the scope of the market for banking services is essentially sound. It is widely accepted by students of banking structure that a substantial part of the business of commercial banks, particularly small deposit and loan business, is derived from the immediate vicinity of the office and from customers with very restricted alternatives.[23] Moreover, the record in the PNB-Girard case indicates not only that a large proportion of the small loans and deposits of the defendant banks originates in the four-county area (in dollar volume, 74% of the loans under $100,000; 89% of real estate loans under $50,000; 96% of the savings deposits of individuals; 89% of the demand deposits of individuals),[24] but that, with the exception of large deposits and loans, bankers view their market as mainly local. For example, the testimony of an officer of Girard Trust indicated that in planning branch expansion in residential areas it is common to choose a radius of one mile in determining the geographic area from which a bank would be expected to draw the bulk of its business.[25] A typical response to the question of the geographic area from which existing branch offices generate business is "(a)bout a mile radius to the location." [26] The reason for the narrowness of this view of the prime service area of a banking office is that "(c)onvenience is an extremely important thing, and it is one of the reasons you establish a branch." [27] When banks apply for branches, and the matter reaches the Banking Board of Pennsylvania, "They invariably submit to the Board, substantiated by maps and so on, what they call the particular local area from which they expect to draw the bulk of their business; and in practically every case which has appeared before the Board that area has a diameter of not more than a mile and a half or so." [28] The testimony of Mr. Potts, president of PNB, is also illuminating for its frank minimization of the extent of competition between banks separated by more than a few miles (excepting, of course, competition for large loans and deposit accounts). Speaking of the Morrisville Bank, three to four miles from branches of PNB, Mr. Potts stated that competition between them would exist "to a limited degree, if at all." [29] And referring to a bank that is five or six miles from a branch of PNB, Mr. Potts felt that "(t)he competition would be de minimis." [30] These statements could be multiplied.

This evidence undoubtedly understates the extent to which nearby banks provide

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[22] *Ibid.*, p. 360, n. 37.

[23] See particularly, David A. Alhadeff, "The Market Structure of Commercial Banking in the United States," *The Quarterly Journal of Economics*, Feb. 1951, pp. 63-66; Lester V. Chandler, "Monopolistic Elements in Commercial Banking," *Journal of Political Economy*, Feb. 1938, pp. 1-22.

[24] See defendants' exhibits: DX-30, DX-60, DX-63, III, DX-64, DX-66, III.

[25] R. 534.

[26] R. 594.

[27] R. 615, 693, 752-753.

[28] R. 1417.

[29] R. 910.

[30] R. 911.

at least potential alternatives to bank customers; but it suggests that a substantial part of bank business is solicited and drawn locally, with convenience of location to customers a crucial factor in determining the service area of a bank. It also suggests that while the four-county area is smaller than the relevant market for some facets of bank business, it may also exaggerate the geographical scope of banking markets for other services and customers. Motter's conclusion that concentration statistics based on a four-county market are likely to overstate the degree of concentration in banking in the Philadelphia area [31] does not take into consideration the existence of such intra-four-county submarkets.

Motter criticizes the Court, in part, for its reliance on the fact that "state law apparently recognizes [the four-county area] as a meaningful banking community in allowing Philadelphia banks to branch within it. . . ." [32] Motter comments that "It is anomalous that a court so concerned with competition in banking should rely upon branching restrictions, which often act to stultify competition, as a factor in determining the proper 'section of the county.'" [33] This seems to me a just criticism, although Motter gives it more attention than should be applied to what appears to be a parenthetical clause. The more important phrase following this clause, "and which would seem roughly to delineate the area in which bank customers that are neither very large nor very small find it practical to do their banking business," [34] is given short shrift.

According to Motter, "(i)n the Philadelphia case, choice of *any one* section of the country, to the exclusion of others, can hardly lead to a realistic picture." [35] If we substitute the word complete for realistic this statement would be true, but without operational significance. A really complete treatment would have to consider the product and market options of each actual and potential user of each service offered by commercial banks, clearly not a feasible project. Nor is it necessary; the Government and Court can legitimately select some facets of the banking business and some group of bank customers as likely to be affected by increased concentration in banking. If these services and customers are important, the market involving these services and customers is a relevant market.

III. *The Competitive Impact of the Proposed PNB-Girard Merger on the Philadelphia Area*

In the Philadelphia area the merger process sharply altered the banking structure between 1947 and 1960. In that period the number of banks with head offices in Philadelphia county (coterminus with the city) declined from 39 to 17, or by 44%. The number of banks with head offices in Delaware, Bucks and Montgomery counties declined from 69 to 26, or by 62%. For the four counties together the decline was from 108 to 43 banks, or 60%. At the same time the number of branch offices in the four counties increased from 70 to 240 (243%), and the total number of banking offices in the area increased from 178 to 283 (59%).[36]

In 1947, the then largest bank in Philadelphia (PNB) controlled 23% of bank assets in the city and 20% of bank assets in the four-county area. The four largest banks held 57% of Philadelphia bank assets and 49% of bank assets in the four-county area. In 1960 the largest bank in Philadelphia (First Pennsylvania) controlled 25% of bank assets in Philadelphia

[31] Motter, *op. cit.*, p. 95.
[32] *Ibid.*, p. 94.
[33] *Ibid.*, p. 95.
[34] *Decision*, p. 361.
[35] Motter, *op. cit.*, p. 94.

[36] GX-13.

and 23% of bank assets in the four-county area. The four largest banks controlled 76% of bank assets in Philadelphia and 69% of bank assets in the four counties.[37]

The merger of PNB and Girard, if effected in 1960, would have reduced the number of banks in Philadelphia from 17 to 16 and the number in the four counties from 43 to 42. It would have increased the proportion of bank assets held by the largest bank in Philadelphia from 25 to 39%, and in the four counties from 23 to 36%. And it would have increased the fraction of bank assets held by the four largest banks from 76 to 85% in Philadelphia and from 69 to 78% in the four-county area.[38]

The merger of PNB and Girard also would have altered sharply the relative size distribution of banks in Philadelphia. At the time of the trial the relative size of the six largest banks in Philadelphia (measured by total deposits) was: 100 (the largest bank), 97, 65, 45, 42, 24. If the merger had been consummated, the relative sizes would have been: 100, 62, 28, 26, 15, 8.[39] The Government argued that the merger would give the new bank a competitive edge over its rivals, and might well induce defensive mergers by the remaining banks.

In evaluating these facts the Supreme Court stated:

> Specifically, we think that a merger which produces a firm controlling an undue percentage share of the relevant market, and which results in a significant increase in the concentration of firms in that market, is so inherently likely to lessen competition substantially that it must be enjoined in the absence of evidence clearly showing that the merger is not likely to have such anti-competitive effects. . . .
>
> Such a test lightens the burden of proving illegality only with respect to mergers whose size makes them inherently suspect in light of Congress' design in §7 to prevent undue concentration. Furthermore, the test is fully consonant with economic theory. That "competition is likely to be greatest when there are many sellers, none of which has any significant market share," is common ground among most economists, . . .
>
> The merger of appellees will result in a single bank's controlling at least 30% of the commercial banking business in the four-county Philadelphia metropolitan area. Without attempting to specify the smallest market share which would still be considered to threaten undue concentration, we are clear that 30% presents that threat.[40]

The economic underpinning of these remarks is weak. As Abramson suggests in his Comment, the Court's reference to the desirability of *insignificant* market shares is irrelevant to the Philadelphia case—both PNB and Girard (and several of their rivals) had significant market shares without merger. This was not a question of atomistic numbers versus oligopoly; it involved the issue of somewhat more or less concentrated oligopoly. Furthermore, not only is oligopoly the typical market structure of banking in urban centers in the United States, but Philadelphia also is (and, after the merger, would have been) relatively low on the scale of urban concentration. On the basis of 1956 data for concentration in the 53 reserve cities, after the merger Philadelphia still would have ranked only 32nd and 43rd in proportion of assets held by the largest and five largest banks, respectively.[41]

It is true that a major and large capacity alternative would have been removed from the Philadelphia banking scene; that the number of large banks (those with deposits over $100 million) in the Philadelphia area would have been reduced from 7 to 6 (in Philadelphia) and 8 to 7 (in the four counties); and that this reduction, plus the substantial

[37] GX-16.
[38] *Ibid.*
[39] GX-196.

[40] *Decision*, pp. 363-364.
[41] See DX-22, DX-23.

edge in size which the new bank would possess over its rivals might be conducive to more effective leadership (and less effective competition). Further merger activity to rectify the heightened inequality in size might well have followed. Any adverse competitive effects or induced merger activity are conjectural, however, as there are no known strategic properties attaching to the changes in numbers or size distribution consequent on the proposed merger, or the 30% market share cited by the Court. Although there is a well grounded expectation that *drastic* reductions in numbers and increases in concentration will reduce competition, there is no scientific basis for predicting any significant effect on competition that would have resulted from the proposed merger of PNB and Girard.

The Court's reply to this line of reasoning was that Congress was so concerned with the rising tide of concentration that Section 7 of the Clayton Act was enacted to permit intervention in the process of concentration without "elaborate proof of market structure, market behavior, or probable anticompetitive effects."[42] The Court went on to say that a merger which significantly increases market concentration "is so inherently likely to lessen competition substantially" that it must be enjoined in the absence of evidence to the contrary.[43] Now these are separable lines of argument that have no necessary connection. The first is that in Section 7 Congress has attempted to ease the burden of the Government in proving mergers illegal. The second is the proposition that significant increases in concentration (used in a non-tautological sense), such as that involved in the proposed PNB-Girard merger, have a high probability of impairing competition seriously. The second proposition, as indicated above, must be rejected as unproven. The first statement is apparently valid, and involves the Government, defense, and the courts in the difficult problem of decision-making under conditions of inadequate information.

Congress has instructed the Executive and courts to halt monopolies "in their incipiency and before consummation," but it has provided no criteria to facilitate this. Economics has little to contribute to predictions of this sort, and even that little would require inquiries so time-consuming that the law would be stultified by delay. The courts, with some legislative sanction, have consequently tended to adopt arbitrary rules (such as the 30% market share benchmark suggested in the PNB-Girard decision), with rebuttable presumptions that mergers which carry market shares beyond certain limits will have anti-competitive effects. Such rules have a crude underlying economic rationale, but they are arbitrary, and can be defended only as pragmatic necessities to implement a philosophy of decentralized power. Whatever the merits and survival power of such rules, they have clearly shown the capacity to affect merger activity in the short run.

IV. *Competition in National and International Markets*

In initially approving the PNB-Girard merger proposal, the Comptroller apparently gave considerable weight to the argument that the merger would tend to have a highly beneficial effect on competition in national and international markets.[44] And Motter, Abramson, and

[42] *Decision*, p. 363.
[43] *Ibid.*

[44] "Since there will remain an adequate number of alternative sources of banking service in Philadelphia, and in view of the beneficial effects of this consolidation upon international and national competition it was concluded that the over-all effect upon competition would not be unfavorable." GX-164, "Advance Extract From Annual Report to The Congress of The Comptroller of the Currency."

Carson and Horvitz, all refer to the enhanced competition for the business of large borrowers as a potentially significant offset to the possible adverse local effects of the proposed merger on competition.[45]

Such criticisms of the Court's decision (or of the appropriateness of applying Section 7 criteria to a bank merger, rather than the standards of the Bank Merger Act), suffer from two fatal defects. First, the increase in national and international competition would have come about solely from the consolidation of two sizable banks—both already dealing with national customers—into one still larger. Lending limits would have been increased from $8 million for PNB and $6 million for Girard to $15 million for the merged bank.[46] If the effects of this merger on local markets, where these banks are quite important, is problematical, the effects of this increase in size on national markets, where these banks are relatively unimportant, is almost certainly negligible.

Second, Abramson seems to be implying that the range of alternative choices of a small local borrower and a national concern are comparable.[47] Otherwise, it would be obvious that the restriction of choice to local borrowers with only local options is a much more serious matter than the enlarged options to very large borrowers. Since the latter can borrow from many banks over a wide geographic area (and borrow from other types of lenders), the expansion of large borrower alternatives as a result of any particular merger is likely to be inconsequential. Such borrowers were already in a position to "obtain funds in highly competitive markets where supplies of credit are allocated to the competing demands which offer the best net return. The advantage of being able to borrow on a short- or long-term basis in such markets is that there is seldom a problem of availability. At the going price, funds are available." [48]

It should also be observed that the merged bank would hardly have been able to add much to the borrowing capacity of a prime local customer who had been willing to go to the minor trouble of obtaining lines of credit (and loans) from *both* PNB and Girard. If a major Philadelphia refinery borrowed instead from New York City, it was because the New York City option had a balance of advantage that offset the inconvenience of arranging two or more local lines and loans. The purpose of the merger was to reduce the relative attractiveness of New York to large customers by increasing the size, and thus the pulling power of Philadelphia banks. It was felt that increased size meant not only an increased lending limit, but also an increased willingness to accept risk in transactions with single customers, increased specialization and knowledgeability, and increased prestige.[49] It was hoped that this would contribute, not so much to "getting back business that we have lost," but rather

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[45] Motter, *op. cit.*, pp. 96-97; Abramson, *op. cit.*, p. 105; Carson and Horvitz, *op. cit.*, p. 107.

[46] The additional $1 million in capital for the merged bank would have been accomplished as part of the merger plan by a sale of new stock and shift from undivided profits sufficient to increase the capital and surplus account of the new bank from $140 million to $150 million. (*Application for Approval to Merge . . .*, p. 33.)

[47] "The Court's concern to preserve a range of alternative choices for consumers was not applied in its observation that business firms in the Philadelphia area which find the lending limits of local banks insufficient to meet their needs could obtain bank credit in other cities . . . ." Abramson, *op. cit.*, p. 105.

[48] Federal Reserve System, *Financing Small Business, op. cit.*, p. 364.

[49] See the discussion by the presidents of PNB and Girard, R. 883, 1609-1613.

"keeping what we have here in Philadelphia. . . ." [50] This, of course, reflects legitimate business objectives on the part of the banker proponents of the merger; but it is difficult to attach great social significance to the marginal addition to the alternatives that would have been afforded large customers in the Philadelphia area.

V. *Criteria Under Section 7 vs. the Bank Merger Act of 1960*

In his dissenting opinion in the PNB-Girard case, Justice Harlan stated with regard to the Bank Merger Act of 1960, that

> The Congressional purpose clearly emerges from the terms of the statute and from the committee reports, hearings, and floor debates on the bills. Time and again it was repeated that effect on competition was *not to be the controlling factor* in determining whether to approve a bank merger, that a merger could be approved as being in the public interest even though it would cause a substantial lessening of competition.[51]

The other factors (the so-called "banking factors") that might influence the decision of the bank supervisory authorities are: "The financial history and condition of the banks involved, the adequacy of its capital structure, its future earnings prospects, the general character of its management, the convenience and needs of the community to be served, and whether or not its corporate powers are consistent with the purposes of this chapter." [52]

Justice Harlan demonstrated convincingly that Congress apparently intended in the Bank Merger Act of 1960 to establish machinery to control bank mergers that centered power in the hands of the bank supervisory authorities, with the Department of Justice relegated to a largely advisory status; and that the authorities were to take into account banking as well as competitive factors. However, this does not dispose of the question of whether Congress was right in doing this, and inferentially whether we are worse off because of the decision under consideration.

Both Motter and Abramson regard the explicit inclusion of a wider set of banking criteria as one of the virtues of the Bank Merger Act of 1960.[53] This seems dubious. The "banking factors" are notable for their vagueness and the absence of any suggestion in the law (or by the Commentators) as to how these qualitative matters of judgment are to be weighed in arriving at a net result. How, for example, is the adequacy of management to be measured? By past performance? Reputation? The assertions of proponents of a merger? Assuming that a bank management is weak, how are the supervisory authorities to appraise the efforts of existing management to improve management quality, especially when the merger route is justifiable assuming the continued existence of inadequate management? And how is a presently weak management to be weighed against a permanent structural change brought about by a merger? This will all be a matter of arbitrary judgment on the part of the bank supervisory agencies—arbitrary to a degree beyond that inherent in the more narrowly confined Section 7 of the Clayton Act. Inclusion of the "banking factors" assures that a supervisory authority looking for a reason to approve a merger will find one.

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[50] Mr. George Brown, President of Girard, R. 1623.

[51] Dissenting opinion in *U. S. v. The Philadelphia National Bank, et al.*, 374 U. S. 321, 382 (1963).

[52] 12 U. S. C. (Supp. IV, 1963), #1828(c). See also Section 6 of the Federal Deposit Insurance Act, 12 U. S. C. #1816.

[53] Motter, *op. cit.*, pp. 90-92; Abramson, *op. cit.*, pp. 101-103.

Abramson's discussion of the proper role of competition in banking, and his critique of the Court's view that the maintenance of competition is even more important in a regulated industry than in one that is unregulated is interesting and provocative. The Court's point was that, where entry is controlled, the public is in greater need of the protection of competition among the already existing firms than where it has the additional protection of free entry. Abramson argues that, since entry, branching, and merger activity are controlled by public authority, the allocation of capital to the banking industry is publicly regulated, and thus antitrust "reliance upon private decisions" is inappropriate.[54] This is a false dichotomy, since whatever banking structure is established by public regulation (plus other influences), it will still work itself out in the market by various forms and degrees of competition. These in turn will influence the costs and prices of banking services, rates of profit, and capital investment. It is extraordinary to see the chief economist of the present Comptroller of the Currency, who has laid so much stress on the need for "enterprise and initiative" in banking, apparently denying the desirability of competitive interactions of banks, and arguing that "intimate public controls" imposed on lending practices are adequate to permit dispensing with "the maintenance of competition according to antitrust concepts."[55] This denial of the applicability of standards of competitive structure and behavior also goes quite a bit farther than that intended by the authors of the Bank Merger Act of 1960.

VI. *Should the Power to Approve or Disapprove Bank Mergers be Left Exclusively in the Hands of the Bank Supervisory Authorities?*

Although Abramson dismisses Representative Celler's discussion of the proper locus of authority over bank mergers on the ground that "it is not a question of expertise . . . but rather a conceptual question of the standards which should be applied,"[56] this ignores an important set of issues that are to some degree independent of the question of standards. Among these issues the question of ex-

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[54] Abramson, *op. cit.*, p. 102.

[55] *Ibid.*, p. 103. Contrast this view with the following remarks on the subject "Competition in Banking," by Mr. James J. Saxon, Comptroller of the Currency, at the 68th Annual Convention of the Kentucky Bankers Association, Louisville, Kentucky, October 22, 1962:

"The banks of our country are not . . . controlled in the same degree as the 'public utilities.' This difference is of vital significance in determining the proper role of competition in the field of banking. In the public utility industries, the cost conditions which prevail require in many instances the granting of monopoly powers as a means of assuring service and avoiding destructive competition. Accordingly, in that industry, in addition to the regulation of entry, the serving of public convenience and need is made mandatory, and the terms under which those services are offered are publicly controlled. *Neither of these latter two forms of public control is applied to the field of banking.*

"In banking, even though entry is regulated, there is broad scope for the exercise of private initiative. Unfortunately, the significance of this distinction is not always fully understood. . . . There remains today, as in the past, a public concern to maintain confidence in the banking system. *But we must not regard this objective as justifying protection against competition. For if the public controls in the field of banking were designed to provide a shelter against rivalry, it would also become necessary to require the mandatory provision of banking services at rates fixed by the public authorities. There would be no other way, under those circumstances, to protect the public interest."* (Mimeographed release, pp. 2-3. Italics added.)

[56] Victor Abramson, "The Philadelphia National Bank Case: A Reply," *The National Banking Review*, 1, December, 1963, p. 243.

pertise is less important than the question of biases built into the regulatory machinery by the nature of its role, contacts with industry members, sources of personnel, and similar considerations.

Dealing briefly with the issue of expertise, there is no doubt that the personnel of the bank supervisory authorities are better informed on the banking business than personnel of the Antitrust Division. There is reason to suppose, on the other hand, that a tradition of neglect of questions of competition and monopoly and their applications to banking left the supervisory authorities at a disadvantage in comparison with the Antitrust Division in expertise in those areas. It is obvious that since 1960 the supervisory authorities have made vigorous efforts to remedy this neglect, but, of course, it would be similarly possible for the Antitrust Division to do the same with respect to the banking business. In neither case would it be reasonable to expect the specialist agency to acquire the depth of understanding of the other field that comes from continuous and extensive dealings with specialist problems.

The more important question, however, is the biases that are likely to characterize the bank supervisory agencies and the Antitrust Division. Here, the record of neglect of questions of competitive effects by the supervisory authorities is impressive and relevant. Thus, for example, during the period extending from 1950 to May 1, 1955, the Comptroller of the Currency approved 376 consecutive bank mergers and consolidations, without a single intervening disapproval.[57] Equally significant is the fact that during those years

the Comptroller's office had "not issued anything specific to the examiners" in regard to considering anticompetitive factors; it has never notified national bank examiners or "given them any specific admonition" that it is the Comptroller's policy to disapprove any bank merger violative of the Celler-Kefauver Act. Nor has it required examiners to make findings of fact with regard to competitive considerations in recommending approval or disapproval of proposed bank mergers.[58]

Subsequently, as a result of continued vigorous merger activity, and sharp criticism of supervisory policies, consideration appears to have been increasingly given to competitive factors. Nevertheless, "(o)nly after the House passed the Celler bill covering bank mergers by asset acquisition under the Clayton Antitrust Act did they [the bank supervisory authorities] finally propose a bill themselves."[59] And the rates of approval of bank mergers by the supervisory agencies remain remarkably high.[60]

This is all understandable. The bank supervisory authorities are in continuous contact with the bankers under their jurisdiction, and policy-makers among the supervisory authorities tend to be drawn from among the bankers themselves. Since bankers are deeply concerned with supervisory policies, they inevitably exercise their political influence to assure the selection of sympathetic authorities. Continuous contact and interaction tend to consolidate what frequently amounts to a tacit alliance. The regulators do not

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[57] *Current Antitrust Problems*, Hearings before Antitrust Subcommittee No. 5, Judiciary Committee, House, 84th Cong., 1st Sess., Part 1 (1955), p. 451.

[58] *Corporate and Bank Mergers*, Interim Report of Antitrust Subcommittee No. 5, Judiciary Committee, House, 84th Cong., 1st Sess. (1955), p. 36.

[59] "Supplemental Views of Senators Douglas, Clark, Proxmire and Muskie," *Regulation of Bank Mergers*, Senate Rep. No. 196, Report of Committee on Banking and Currency, Senate, 86th Cong., 1st Sess. (1959), p. 25.

[60] See Celler, "The Philadelphia National Bank Case: A Rejoinder," *The National Banking Review*, 1, Dec., 1963, pp. 235-236.

merely regulate; they represent and lead the regulated.

It would be wrong to be very mechanistic about this matter. Bankers are clearly not all in agreement, and it is possible for supervisory authorities in some jurisdictions to take a strong and relatively independent stance. However, the forces suggested above are powerful; and neglect of the wishes and interests of the regulated is likely to be incompatible with long supervisory tenure. The extent to which these forces have led regulators in other fields to identify with the regulated and to ignore the public's interest in either substantial competition or effective control is well-known.[61] It suggests that the philosophy of the Bank Merger Act of 1960 may be a mistaken one, and that competition in banking might benefit greatly from the maintenance of an active role in the bank merger field of an independent agency concerned primarily with implementing the philosophy of the antitrust laws.

VII. *Conclusions*

The decision of the Supreme Court in the PNB-Girard case is of major significance in the development of public policy on bank mergers. In addition to preventing the specific merger proposal involved; the decision overturned the generally held view that Section 7 of the Clayton Act is not applicable to bank mergers; it elevated the Department of Justice from a largely advisory status to a position of considerable authority in bank merger regulation; and it established a legal rule that imposes definite limits on the further course of merger activity in the banking field.

The case brought home once more the absence of adequate standards for appraising structural change under conditions of oligopoly. The Court's conclusion, that a bank merger increasing market concentration in a single firm to "at least 30%" would very probably lessen competition substantially, was not well supported in the record of the PNB-Girard case. In part this reflects the fact that economic analysis has little to say regarding the competitive effects of increments to concentration short of the achievement of single firm monopoly. This imposes an almost hopeless burden on authorities instructed to halt monopolies "in their incipiency and before consummation."

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[61] On the ICC and the railroads, see S. P. Huntington, "The Miasmus of the ICC," *Yale Law Journal*, Vol. LXI, 1952, pp. 467-509; TNEC Monograph No. 26, *Economic Power and Political Pressures*, Washington: GPO, 1941, pp. 148-149. On electrical utility commissions and the utilities, see TNEC Monograph No. 26, pp. 156-158; Clair Wilcox, *Public Policies Toward Business*, Homewood, Ill.: Irwin, 1955, pp. 574-577; John Bauer, *Transforming Public Utility Regulation*, New York: Harper, 1950, Pt. I. On the Civil Aeronautics Board and the airlines, see Wilcox, *op. cit.*, pp. 638-642; Horace M. Gray, "The Airlines Industry," in Walter Adams, ed., *The Structure of American Industry*, 3rd ed., New York: Macmillan, 1961. On the activities of the Secretary of Agriculture in preventing the undue enhancement of agricultural prices by agricultural cooperatives, see Corwin D. Edwards, *Maintaining Competition*, New York: McGraw-Hill, 1949, pp. 56-65.

It is interesting to note Edwards' statement in regard to the enforcement of provisions in the cooperative statutes against the undue enhancement of prices: "If any use is to be made of these prohibitions, however, their administration should be entrusted to the FTC rather than the Secretaries of Agriculture and Commerce. Experience has shown that in the hands of the latter they are not utilized. The Secretary of Agriculture has not proceeded against farm cooperatives, even though the practices of some of them have been so restrictive as to induce the Department of Justice to proceed under the antitrust laws." (Pp. 61-62.) And with regard to the antitrust responsibilities of the Secretary of Agriculture under the Agricultural Marketing Agreements Act of 1937, Edwards stated that, "In practice, the Secretary of Agriculture has made no investigation directed to the discovery of abuse of the antitrust exemption and has revoked no marketing agreement on this ground." (P. 62.)

Thus, they are compelled to adopt arbitrary rules such as that propounded in the PNB-Girard decision, or to be arbitrary on an *ad hoc* basis. Assuming the validity of the broad purposes of the antitrust laws to maintain a competitive and decentralized economy, and given the *preventive* perspective of Section 7, the decision and standards established in the PNB-Girard case are defensible.[62]

[62] The purposes and potential effectiveness of the antitrust laws have not gone unchallenged. For an eloquent statement of the view that the antitrust laws are an anachronism in an age of technological and organizational revolution, inevitably ineffectual, and in fact "a great moral gesture which proves that in a nation of organizations individuals really are supreme: or, if not, they are going to become so very soon through the intervention of the Federal Government," see Thurman W. Arnold, *The Folklore of Capitalism*, New Haven: Yale University Press, 1937, pp. 207-229.

The Philadelphia-Girard Decision: Some Further Comments

► THOMAS GALE MOORE

In a recent issue of this journal there appeared three articles [1] dealing with the Supreme Court decision in the case of *United States* v. *Philadelphia National Bank et al.*[2] The first article, by David C. Motter, dealt with the case as a whole; the second, by Victor Abramson, discussed whether the Clayton Act should be applied to banking; the third article focussed on indicators of competition and especially on the use of concentration ratios. These papers raise fundamental issues concerning our antitrust policies. Skeptical of the decision from the legal aspect, they concentrate on the economic problems. Mr. Motter appears to be on solid ground when he questions the legal basis for the decision. I agree with him that the court's definition of the market, i.e., banking in a four county area, may be poor. Accepting Motter's definition, however, would still invalidate the merger. More important, these three articles seem to miss the significance of concentration ratios and, even more fundamentally, overlook the important role of competition in a regulated industry such as banking. This paper will consider each of these points.

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I. *What is the Law?*

The issues in the case are both legal and economic. The central legal problem is to decide between two statutes: the Clayton Act, section 7,[3] and the Bank Merger Act.[4] Unless the Clayton Act is applicable to banking, no case exists.

> Sec. 7. . . . *that no corporation engaged in commerce shall acquire, directly or indirectly, the whole or any part of the stock or other share capital and no corporation subject to the jurisdiction of the Federal Trade Commission shall acquire the whole or any part of the assets of another corporation. . . .*[5]

Since banking is not subject to the jurisdiction of the F.T.C., it is clear that any bank is free to acquire the *assets* of any other firm without violating the Clayton Act. On the other hand, if a bank were to purchase the stock of an-

[1] David C. Motter, "Bank Mergers and Public Policy"; Victor Abramson, "Private Competition and Public Regulation"; Deane Carson and Paul M. Horvitz, "Concentration Ratios and Competition", *The National Banking Review*, 1, September 1963, pp. 89-110.

[2] *U. S.* v. *The Philadelphia National Bank et al.*, 374 U.S. 321 (1963). Reference to the opinion of the court will be cited hereafter as *Decision*.

[3] Act of December 29, 1950, Public Law 899, Sec. 7, 38, Stat. 731, as amended; 15 U.S.C. 18; this amendment will be referred to as section 7 in the remainder of this paper.

[4] Act of May 13, 1960, Public Law 86-463, 74 Stat. 129, 12 U.S.C. 18 28(C).

[5] Clayton Act, Sec. 7, *op. cit.*

other bank, this would clearly violate Sec. 7. In the immediate case, the two banks were attempting to merge; the Justice Department argued and the Supreme Court sustained the position that the merger was neither a stock acquisition nor a purchase of assets, but fell between the two. Since the stock acquisition provision applies to all corporations including banks and since the Supreme Court felt that the merger was closer to stock acquisition than to asset acquisition, it held that bank mergers are subject to section 7.

To discuss this finding, only a lawyer would be fully competent. As a layman, however, I cannot help but note that the prevailing legal opinion, including that of the Attorney General, had been for several years that bank mergers were not subject to the Clayton Act.[6]

Justice Harlan in his dissent quoted the Senate Report on S. 1062 (the Bank Merger Act) in which it was stated that Bank mergers were exempt from Section 7 of the Clayton Act.[7] Senator Fulbright, in sponsoring the Bank Merger Bill, said, "Banking is too important to depositors, to borrowers, to the government, and the public generally, to permit unregulated and unrestricted competition in that field." [8]

If Congress had intended that Section 7 apply to bank mergers, then there would have been little reason to pass the Bank Merger Act. Since Section 7 is more strict and would lead to the rejection of more mergers than the Bank Merger Act, the sole effect of the latter law would be to allow the Comptroller to veto mergers. While these factors are not determining, they do give a presumption in favor of the Bank Merger Act. The Court, however, ruled otherwise.

II. *The Relevant Market*

. . . shall acquire the whole or any part of the assets of another corporation engaged also in commerce, where in any line of commerce in any section of the country . . .[9]

What is a line of commerce? The Court decided that banking is a line of commerce; it argued that the whole group of services furnished by banking is a separate line, and that some of these are sufficiently different to be entirely free of competition from non-commercial bank sources. The lawyers for the bank argued that there were several distinct lines of commerce, each with its own market and competitors. To determine the effect of the merger on the competition, the proper line of commerce (market) is one that has a low elasticity of substitution between it and its nearest substitutes. Or to put it less technically, the proper market is the one for which there are very poor substitutes. A good test for this would be the effect a price change has on consumption. If banks were to raise their charges and lose most of their business, then one could safely assume the existence of good substitutes. However, if a change in charges has little effect on business, the substitutes are poor. We should, therefore, rephrase the question, "What is the proper market?" to read, "Can commercial banks raise their charges on their services without appreciably loosing customers?" Clearly in the loan market they cannot. If they raised their rates appreciably, non-bank sources, such as savings-and-loan associations, credit unions, insurance companies, and mutual savings banks, would surely take some of the loan business from them.

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[6] *374 U.S. 321* (1963); J. Harlan, dissenting, p. 377.

[7] *Dissent, op. cit.*, p. 378.

[8] *Ibid.*, p. 380.

[9] Sec. 7. *Op. cit.*

[10] Elasticity of substitution can be measured as the percentage change in rates of one good divided by the percentage of change in the price of another.

On the other hand, as the Court pointed out, there are only poor substitutes for demand deposits, and consumers do not consider non-banking savings institutions identical substitutes for commercial banks.[11] While banking is too heterogeneous to be a single line of commerce, it is necessary to show only that in "*any* line of commerce" the merger may substantially lessen competition. In the Crown Zellerbach case [12] the Ninth Circuit Court of Appeals held that "the line of commerce need not even be a large part of the business of any of the corporations involved." Showing that the merger would reduce competition in the demand deposit market should be enough to sustain the Justice Department's case.[13]

Basing the case on the grounds that the merger might substantially lessen competition in the demand deposit market and possibly in some of the other markets, such as savings deposits, would simplify the problem of the correct geographical area. It is apparent that there is no right "section of the country" for banking, since for each of the different services a bank competes in a different area. For demand deposits of individuals, however, the four county area is probably correct. Banks differentiate considerably in their charges between large accounts and small ones. While they compete for corporate accounts over a large area, the market for small demand deposits is more limited. People rarely establish checking accounts at banks very far from home or work, unless there is a marked difference in charges. The convenience of having an account nearby insulates a bank's small accounts from the competition of institutions several miles away.

III. *Concentration and Lessening of Competition*

. . . where . . . the effect of such acquisition may be substantially to lessen competition, or to tend to create a monopoly.[14]

Motter, Abramson, Carson and Horvitz all criticized the use of concentration ratios in determining the extent of competition. Their most telling point is that concentration ratios may be meaningless or misleading if the market is poorly defined. Thus, if the Court had accepted the whole U.S. as the relevant market the merger would have had no measureable effect on concentration; however, if the market were defined to be small enough, it is likely that a particular five block area could be found where the only banks were branches of Philadelphia National and Girard. In that case, the merger would clearly produce a monopoly. Thus we could prove either point. This does not mean nor do these authors suggest that concentration ratios be ignored. It is only that they must be used with caution.

If the demand deposit market in the four counties is accepted as correct, then the right concentration ratio would be based on that area. Thus, the merged banks would have 36 percent of the total deposits in the area.[15] On the assumption that demand deposits of individuals are distributed among banks in the same ratio as total deposits, the proposed merger would lead to a bank that had about 35% of total demand deposits in the relevant area.[16]

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[11] *Decision*, p. 356.

[12] *Crown-Zellerbach Corporation* v. *F.T.C.*, 29 LW 2593, (C.A. 9, June 5, 1962).

[13] Of course, the opinions of lower courts are not binding on the Supreme Court, but given the law it would seem that the Court would have been on stronger grounds if it had accepted the banks' arguments about different lines of commerce and then determined that in this one line competition would be reduced.

[14] Section 7, *op cit.*

[15] *Decision*, p. 331.

[16] It seems quite likely, however, that the two institutions have a somewhat lower percentage of individual checking accounts than this. While large depositors probably concentrate in big banks, smaller accounts may be predominately in the small institutions.

A further objection to concentration ratios is made by Motter and by Carson and Horvitz. David Motter states: "The question rather is the much more complex one of the competitive impact of a change in concentration in a market already characterized by a substantial degree of concentration." [17] Carson and Horvitz say: "The dominant bank or banks may have reached the present state of concentration through mergers. . . . This may or may not have been accompanied by a diminution in effective competition." [18]

They are questioning whether an increase in concentration will lead to a lessening of competitive forces. But what is meant by competition and why is it desired? According to economic theory, pure competition will, in the long run, lead to a driving down of prices to the point where they just cover opportunity costs. Competition in the real world can be expected to put pressure on prices and costs. In monopoly, however, there are no strong forces keeping prices down; the monopolist can raise his prices above costs without fear of loss of market. The *sine qua non* of competition then is that there be forces working to reduce prices and costs no matter whether any individual firm is or is not profit maximizing.

Competition can take the form of increased service or price reduction depending on consumers' preferences. Let us analyze the price competition case.[19] Assume price is above average cost. Why should any firm cut its charges? If other banks will immediately follow by reducing their prices, there will be little incentive. However, if the bank can lower its charges without being followed immediately by the other institutions, it will be more profitable to do so than if competitors follow at once. In banking it is likely that any institution could expand its deposits as much as it desired by reductions in charges, if other banks failed to make the reductions. How other banks finally react is dependent upon the effect of the change on their deposits; if their deposits drop only slightly, they are unlikely to reduce their charges. More formally we could write: let y_j be the demand deposits of the Y_j bank and let x be the demand deposits of the initiating bank, X. Call T the total amount of deposits. If y_j' and x' are the deposits of the two banks after bank X has lowered its service charges on demand deposits, we can then say:

$$\frac{y_j'}{T - x'} = \frac{y_j}{T - x}.$$

This equation makes the reasonable assumption that Y keeps the same share of the remaining market after the change as it had before.[20] The percentage change in output of Y is then:

$$\frac{y_j - y_j'}{y_j} = \frac{y_j}{y_j} - \frac{y_j'}{y_j} = 1 - \frac{y_j'}{y_j} = 1 - \frac{T - x'}{T - x} = \frac{x' - x}{T - x} = \frac{x' - x}{x} \cdot \frac{x}{T - x}.$$

Or, in other words, the percentage change in the demand deposits multiplied by the ratio of the demand deposits of X initially to the demand deposits of all other banks is equal to the percentage change in the demand deposits of any other institution.

It is apparent then that for any given percentage change in a firm's sales, stemming from a price change, the effect on the other firms depends on the original firm's share of the market. If a firm had 30% of the market, the share the Court

[17] Motter, *op. cit.*, p. 96.

[18] Carson and Horvitz, *op. cit.*, p. 108.

[19] The same analysis would apply to any other form of competition.

[20] We are also assuming that total deposits, T, remain the same. Dropping this assumption would leave unchanged the conclusion and unduly complicate the exposition.

held the merged companies would have,[21] and if it reduced prices sufficiently to increase its business 10% (30% of the market to 33%), its competitors each would experience a 10 x 30/70 = 4.3% drop in business. Before the proposed merger, the larger of the two banks had about 17% of the market; this means that, if it had lowered its charges to expand business 10%, its competitors would each have lost about 2%. In general any increase in the share of market will lead to a more than proportional change in the effect of a competitive act by the firm on other companies in the industry. We might note at this point that a merger not only increases the share of market but reduces, by definition, the number of independent entities, any one of which might be the firm to initiate the change.

The essence of the argument is that a firm is more likely to reduce prices if it believes that it can do so without provoking instant retaliation. In the extreme case—where it knows that its action will leave other firms unaffected and where their action will leave its sales unaffected—the firm can be certain that some firms, in fact many, will reduce prices to increase sales as long as prices are above costs. In this situation the firm may attempt to secure the advantage of being first. The greater the share of the market, however, the more certain an institution can be that any price cut will be immediately followed and will lead to only a small expansion in sales.[22] Hence, any increase in concentration or in the market share of a firm (above negligible amounts) will reduce the incentive to competition. In the present case, if the share of market of one firm rises from 17% to 30%, the effect on its competitors of any action by that firm more than doubles; they are considerably more likely to take retaliatory action—and to take it sooner. In addition, the merger would also eliminate an even smaller bank, Girard, which could expect even less response to any competitive act. Girard, by itself, would be more likely to act aggressively.

While we can conclude nothing about the state of competition either before or after the merger, these figures do show that the forces working for active competition between the banks would be reduced by the proposed merger. It is interesting to note that the Court took cognizance of the writings of a number of well known economists who have suggested prohibiting mergers which would lead to a firm's having larger than 20% or 25% of the market.[23] Under the Bank Merger Act the Comptroller of the Currency must request a report on the competitive effects of the merger from the Attorney General, the Board of Governors of the Federal Reserve, and the Federal Deposit Insurance Corporation. In this particular case all three agencies reported that the merger would have substantial anticompetitive effects in the Philadelphia area.

Mr. Motter and the defendants in the case emphasized that the merger would increase competition for large loans. The market for large loans is nationwide and is supplied by the largest banks and insurance companies. Another bank that could make loans of up to $15,000,000 would probably increase competition only

[21] *Decision*, p. 364.

[22] Of course, if market demand for the industry is elastic, a company might experience a large expansion in sales. It would be less, however, than if the other firms had failed to respond.

[23] Carl Kaysen and Donald F. Turner suggest 20% in *Antitrust Policy*, Cambridge, Mass.: Harvard University Press, 1959, p. 133. George Stigler also suggested 20% in "Mergers and Preventive Antitrust Policy," *University of Pennsylvania Law Review*, Vol. 104, 1955, p. 182. Jesse W. Markham mentions 25% in "Merger Policy Under the New Section 7: A Six Year Appraisal," *Virginia Law Review*, Vol. 43, 1957, pp. 521-522.

slightly, since it would have eliminated two smaller banks, each of which could have made part of the loan. A corporation borrowing a large sum of money can either borrow it from one source, or, if the terms are unsatisfactory, borrow it from several sources. Hence, the existence of these smaller institutions must be considered by larger banks; Philadelphia National and Girard were already, in a very real sense, in the market for large loans. Most large borrowers generally do spread their borrowing over several banks or insurance companies; this is done in order to keep multiple sources of funds and also to insure good treatment by the banks. A corporation borrowing $15,000,000 would ordinarily go to more than one bank. The increase in competition for large loans would seem, therefore, to be at best only slight. To this author, it appears that the Court, Attorney General, the Board of Governors of the Federal Reserve, and the Federal Deposit Insurance Corporation were all correct in disapproving the merger. It would probably have decreased competition in the Philadelphia area, and in the large loan market, where it was alleged it might increase it, competition would at best have been improved only marginally.

IV. *Policy*

Both David C. Motter and Victor Abramson concentrate much of their criticism of the case on the policy issue of whether the Bank Merger Act or the antitrust laws should hold. Victor Abramson says: "It would thus appear that the safeguarding of regulatory objectives, rather than maintenance of competition according to anti-trust concepts, is the proper basis throughout for the regulation of competition in banking." [24] Or, to put his objection differently, what role does competition play in a regulated industry? This question has arisen not only in banking but in every regulated field.

Each author argues further that, even if competition has some role to play, the public interest is what must be considered; the Bank Merger Act specifically considers the public interest, while the antitrust laws never mention it. This argument goes to the heart of the antitrust statutes; it is applicable to all industries. The policy embodied in the Sherman and Clayton Acts (with the exception of the Robinson-Patman amendment) is based on the single goal of competition. No recognition is made of other factors which might affect the public interest. The reason for this singleness of thought would seem to be that competition is believed to further the public interest in general. It puts pressure on business to reduce prices and costs; it leads to innovations and product improvements; and it disperses power.[25]

In considering the public interest, the Comptroller of the Currency must take into account the following factors: ". . . the financial history and condition of each of the banks involved, the adequacy of its capital structure, its future earnings prospects, the general character of its management, the convenience and needs of the community to be served, and whether or not its corporate powers are consistent with the purposes of . . ." the Bank Merger Act. Most of these criteria have to do with the profitability of the corporation. In interpreting Section 7 cases, the Court has recognized that a valid rebuttal to the charge of violating the Clayton Act would be to show "a corporation with resources so depleted and the prospect of rehabilitation so remote that it faced the grave probability of business failure . . ."

[24] Abramson, *op. cit.*, p. 103.

[25] For a good description of the expected gains from a policy of encouraging competition, see *Report of the Attorney General's National Committee to Study the Antitrust Laws*, Washington, D. C.: Gov. Printing Office, 1955, pp. 317-318.

and that ". . . no other prospective purchaser" was available.[26] While the decision in the International Shoe case just quoted is not binding, since it was handed down before the Celler-Kefauver Act, it was referred to in the instant case by the Court, which said: "Section 7 . . . does not exclude defenses based on dangers to liquidity or solvency, if to avert them a merger is necessary."[27] In a footnote the Court amplified this position by saying, ". . . the so-called failing-company defense . . . might have somewhat larger contours as applied to bank mergers because of the greater public impact of a bank failure compared with ordinary business failures."[28] The Report of the Attorney General's National Committee to Study the Antitrust Laws also lists the likelihood of failure as a defense in a section 7 case.[29] The House Report on the Celler-Kefauver Amendment makes clear the belief of Congress that the Clayton Act did not apply in bankruptcy or receivership cases.[30]

While none of these factors is binding on future decisions, together they are indicative of the way the Court will probably act.

The Bank Merger Act would consider the profitability of the banks involved; Section 7 would consider this only if one of the banks were failing. A merger that increased the profitability of the banks involved would not necessarily be in the public interest if at the same time it decreased competition. This would seem to hold true for any industry; as a general proposition it is embodied in the antitrust laws: the profitability of an action is no defense for that action.

Banking it is argued is different; it is a regulated industry in which competition plays little role. But this raises fundamental questions. Why is banking regulated? If competition fails to take care of the public interest, are the regulators doing so? What is, in fact, the public interest in banking? It is at least threefold.

The first interest is in the safety of the funds of the public held by banks. If a bank fails and if there is no insurance for the depositor, then the depositor can lose all. Experience has shown that competition will inadequately guard the public against this danger, since when a bank fails it is too late for the depositors to take their business elsewhere. Therefore, we need supervision to keep banks solvent.[31] This basis for regulating banking is akin to the public health laws and to inspection of restaurants. While competition will weed out those who cut too many corners, the public can be badly hurt in the process. The reasons normally given for preventing banks from paying interest on demand deposits, or from paying more than a prescribed maximum on savings deposits, or from allowing free entry, or for controlling their portfolios are based on the argument that banks must be kept sound.

Second, the public interest requires that the banks furnish their services at the lowest possible rates. It is clear that regulation does nothing to foster this need. There is no meaningful control of

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[26] *International Shoe Co.* v. *Federal Trade Commission*, 280 U.S. 291, 302-3 (1931).

[27] *Decision*, pp. 371-372.

[28] *Decision*, note 46, p. 372.

[29] *Report of the Attorney General's National Committee to Study the Antitrust Laws, op. cit.*, p. 123.

[30] Com. on Judiciary, U.S. House of Rep., H. Report 1191, 81st Cong. 1st sess., pp. 5-12 (1949).

[31] An expansion of F.D.I.C. activities to cover all banks and all deposits no matter how large should meet this objection to competition in banking. There are people who believe that consumer sovereignty should prevail; that is, the consumer should be allowed to search for the safe bank and to make mistakes.

maximum charges,[32] nor anything to prevent banks from offering very low rates on savings accounts. Only competition safeguards the public interest. It is clear therefore that competition does have a role to play. It is also true, however, that many of the controls intended to keep banks solvent may stifle competition. The limits on entry are particularly unfortunate. The Report of the Attorney General's Committee to Study the Antitrust Laws says in this respect: "From the economic point of view, relative freedom of opportunity for entry of new rivals is a fundamental requisite for effective competition in the long run. Without this condition, it is idle to expect effective competition."[33] Thus it would seem incumbent upon the regulatory authorities who can limit entry to be as free as possible, consistent with the financial stability of the banking community. Considering the other weapons in the regulatory arsenal for protecting the safety of banks, such as the detailed auditing of their activities, the limits on the interest they can offer, and so on, it appears that a liberal policy on entry would be possible without harm to the public interest. Most small depositors are protected by the F.D.I.C., and large depositors are in a better position to protect their interests; this suggests that a more liberal policy would be helpful to the public interest.[34]

If entry is to be restricted, it is even more important to prevent a contraction in the number of banks by merger. As Professor Donald Dewey writes: "where . . . power to exclude newcomers is present—competition will most probably degenerate into some form of oligopoly. One may, for example, safely predict that any town which limits the number of taxicab permits while allowing them to be bought and sold in a free market will shortly witness a rapid consolidation of firms."[35] When entry is blocked the resources in the industry are worth more combined into a few large companies than fragmented. The consolidated firms can act as a monopoly raising prices and restricting output without fear of new competition. If we substitute banks for taxicab permits, Professor Dewey's statement will apply to the situation in Philadelphia. Given that there are limits on entry, a policy designed to prevent mergers becomes essential.

The banking community is the custodian of a large part of the nation's money supply; herein lies the third interest of the public in banking. The most desirable banking system would be one that was quickly responsive to the actions of the Federal Reserve. Banks will generally respond more quickly to a move of the Federal Reserve if there is considerable competition among them.[36] For example, if the Federal Reserve expands bank reserves in an effort to expand loans, a bank that has a monopoly may feel little compulsion to act; it may consider its profits sufficient. If there is considerable competition, however, an institution will either respond quickly and actively seek out markets for funds or find itself falling behind in the race with shrinking deposits and profits. Again it would seem that competition serves the public interest, notwithstanding the presence of

[32] Usury laws in many states do put some limit on charges, but since bank rates are generally considerably below these limits (which are usually enforced only sporadically, if at all), they give little protection to the public.

[33] Report, *op. cit.*, p. 326.

[34] According to *The National Banking Review*, 1, Sept. 1963, p. 124, only five insured banks were chartered in Pennsylvania between 1953 and June 28, 1963.

[35] Donald Dewey, *Monopoly in Economics and Law*, Chicago: Rand McNally and Co., 1959, p. 26.

[36] If the firms are profit maximizing, then there should be no difference. Monopolists, however, do not *have* to respond to remain in business. The compulsion to act is greater with competition than without.

regulations. It is more than coincidental that, in small towns with only one or two banks, changes in interest charges and lending policies are infrequent.

Thus we can conclude that competition has a very real role to play in the operation of the banking system. While we need some regulation to insure the safety of depositors in the public interest, competition should be fostered as much as possible. The decision in this case will prevent a probable decrease in competition. Thus Philadelphians are undoubtedly better off. The legal justification I leave to lawyers; on the grounds of social welfare the decision is sound.

The Philadelphia Case: Replies To The Rejoinders

The individual authors whose articles are discussed in the two preceding rejoinders have set forth their replies separately below.

► VICTOR ABRAMSON

Professors Herman and Moore believe we have underestimated the importance of maintaining competition in regulated industries. Indeed, Professor Herman supports the Supreme Court's view, expressed in the Philadelphia case, that this need is even greater in the regulated industries, because of the lack of free entry.

The flaw in this reasoning rests in the failure to take account of the discretionary powers of the regulatory authorities over bank entry and bank expansion, and the public objectives of these entry and expansion controls. If the supply of banking facilities were immutably fixed, there would be merit in the argument that mergers of existing firms should be regulated with particular care. This is not, however, the case. The bank regulatory authorities have broad responsibility to assure that public needs for banking services are met, and their policies with respect to chartering, branching and merging are fashioned in terms of this objective.

What Professor Herman describes as a "false dichotomy" is in fact an inherent dichotomy. There is scope for private initiative in banking, but only within a regulatory framework which critically conditions the banking structure which is allowed to emerge. This is in clear contrast with the factors which shape the structure of the unregulated industries under the antitrust laws. In banking, the public authorities play a much larger role in determining the public needs. Although only the banks can satisfy those needs, they do not have the discretion to provide additional facilities and services in the same degree that prevails in the unregulated industries.

Professor Herman finds it difficult to reconcile this view of the role of competition in banking with a statement on that issue by Comptroller Saxon. The Saxon statement which Professor Herman cites was designed to distinguish the more intensive public regulation applied to the public utilities from the less intensive

regulation imposed in the field of banking. There is no conflict between this distinction and the distinction which we have drawn between the public policies applied to banking and those applied in the unregulated industries under the antitrust laws.

Professor Herman belittles the significance of the "banking factors" in merger decisions except as an excuse to approve mergers. It should be evident, however, that, if the "competitive factors" were the sole considerations relevant to the public interest in banking, there would be no reason for imposing restrictions over bank entry and bank expansion. No one would dispute Professor Herman's contention that banking competition would be more effective if the antitrust laws were fully applied in that industry. But this could be accomplished only by allowing free entry and relying on market forces to determine and satisfy public needs. Professor Herman does not advocate this step, and he never makes it clear precisely how far he would go in substituting private competitive decisions for bank regulation. He seems to want the best of both worlds, even though he regards one world as far preferable to the other.

Professor Herman's treatment of the needs of small borrowers, as contrasted with those of large borrowers, reflects his confusion concerning the role of public regulation in banking. He has postulated the wrong choices. Because of the discretionary authority of the regulatory agencies to authorize new bank entry and the expansion of existing banks, there is no need to sacrifice the wants of one set of borrowers for the benefit of another.

Professor Moore's approach is somewhat different. He explores the positive functions of bank regulation, describing them as the protection of depositors, the assurance of the "lowest possible rates" for banking services, and the assurance of quick response to the actions of the Federal Reserve. Reliance upon competition, he states, will not adequately safeguard the public interest in fulfilling the first of these objectives; but competition alone can serve the latter two, so that entry into banking should be ". . . as free as possible, consistent with the financial stability of the community."

These inconsistencies reflect precisely the difficulties encountered in reconciling the competitive concepts of the antitrust laws with the regulatory objectives of bank regulation. If restrictions over entry and the control of bank operating practices are applied in order to safeguard depositors, it will not be possible at the same time to create the competitive conditions which will assure the public of the *lowest possible* rates for the services of banks. Professor Moore attempts to resolve this difficulty by suggesting that the test of permissible entry should be the greatest consistent with the "financial stability" of the community. At present, applications for new bank charters and new bank branches are judged according to the public convenience and need for these facilities and the prospect that they may be operated profitably, taking account of the impact on existing facilities. It is not clear that Professor Moore's test would yield a different result.

The crux of the question is glimpsed by Professor Moore in his observation ". . . that many of the controls intended to keep banks solvent may stifle competition." He follows this observation, however, with the statement that "the limits on entry are particularly unfortunate," and he later states that ". . . competition should be fostered as much as possible." If it were our public policy to rely upon private competition in banking in the same degree that we do in the unregulated industries, then clearly the antitrust laws would properly become the source of our principal safeguard for the public interest. It must be understood, however, that, if entry restrictions were abandoned or greatly liberalized, the task of bank

supervision would become exceedingly difficult. If banks were allowed to be formed or to branch without prior notice under a simple licensing procedure, the size of this task could become overwhelming, and the "careful auditing" on which Professor Moore would rely could become impossible of achievement.

We have not questioned the fact that there is some degree of reliance upon competitive forces in banking. Unlike the public utilities, banks are not deliberately granted monopoly powers; nor are they required to provide services, or subjected to explicit price regulation in all aspects of their operations. To say this, however, is not to define the precise role of competition in banking. These facts merely indicate that under our present public policy the role of competition in banking differs from that in the unregulated industries and in some of the regulated industries. The real issue is how far, in that context, the competitive concepts embodied in our antitrust statutes may be applied to banking. The view we have expressed is that the competitive concepts of the antitrust statutes cannot be fulfilled without freedom of entry, and, conversely, that the existence of entry restrictions necessitates a different role for competition than that which prevails in the unregulated industries. Where the regulatory authorities determine the public interest there cannot be a role for private competition as great as that in the unregulated industries.

A special word should be said about Professor Moore's contention that "the most desirable banking system would be one that would be quickly responsive to the actions of the Federal Reserve." It would, of course, be possible to improve the effectiveness of any segment of our public policy by conforming all other public policies to that single objective. But it is doubtful that Professor Moore could demonstrate that the effectuation of monetary policy has an absolute priority over all other public objectives.

A similar objection can be raised against the absolute fashion in which Professor Moore states the relationship between restricted entry and mergers. His conclusion is that since there are limits on entry into banking, ". . . a policy designed to *prevent* mergers becomes essential" (italics supplied). It is, of course, true that any adverse effects of mergers are likely to be more pronounced where entry is restricted. However, this is a matter which may be taken into account in deciding merger applications. If mergers are found to be necessary in order to satisfy public requirements in some banking markets, but have adverse effects in others, a more liberal branching and chartering policy can accompany merger approval.

I would also quarrel with Professor Moore's treatment of the profitability and the competitive consequences of mergers. Without challenging his interpretation of the law, the question may be raised whether it is sound in terms of the public interest to look merely to the competitive effects of a merger. Even if we consider the profitability effects as well, we would not entirely discern the public interest. The true public concern relates to the *outcome* of competition in terms of the services available to consumers and the prices at which those services are offered. The consequences of a merger in these terms cannot be appraised without knowledge of the degree in which the diminished competition which may result from greater concentration would be counter-balanced by the cost advantages of larger-scale enterprise which are passed on to consumers.

There is little that is worth saying about Professor Herman's observations which imply that ". . . an independent agency concerned primarily with implementing the philosophy of the antitrust

laws" would have a special capacity to discern the public interest in bank mergers, and could be relied upon more confidently to safeguard those interests, than the agencies to which those responsibilities have been assigned by law.

► DEANE CARSON

Mr. Celler appears to reject our contentions that concentration ratios are not definitive indicators of the intensity of price competition in particular markets and that a much closer examination of market practices is required to evaluate correctly the competitive effects of particular mergers.

Matching us statistic for statistic, Mr. Celler correctly concludes that one does not require a "Descartes to prove that concentration in banking exists."[1] It does take some ingenuity, however, to bridge the gap between this observation and the implied conclusions that (1) high concentration in banking markets invariably indicates a lack of price competition, and (2) an *increase* in concentration in a given market over time invariably leads to a diminution of price competition. With respect to the latter, evidence to the contrary is given up by an intensive study of Nassau County, New York, which will be reported in a subsequent issue of this *Review*. Perhaps other market studies would yield different results, a fact that would be completely consistent with our skeptical view of concentration ratios as guides to public policy.

Professor Moore's analysis of the market conditions under which one would most likely find price competition in banking is interesting and novel. Our observations, however, lead us to believe that price cutting in banking markets follows a somewhat different pattern than he suggests. Briefly, a given bank initiates (or responds to) price competition by reducing rates on those segments of its portfolio that are *relatively* unimportant when viewed from its standpoint. Thus, a bank that is relatively weak in consumer loans will respond to competitive pressures by reducing this rate and by avoiding, for as long as possible, cutting rates on other types of loans in which it is relatively stronger. Much more research is needed on both this hypothesis and the one suggested by Moore.

Professor Herman charges us with failing to develop our contention that a substantial degree of substitutability exists between commercial bank inputs and outputs and those of other financial intermediaries.[2] Surely Professor Herman is aware of the competition between commercial banks, mutual savings banks, savings and loan associations, life insurance companies and credit unions for deposits and loans. If commercial banks were to exist in the vacuum of accepting and paying demand deposits, Herman's condemnation of our analysis at this point would take on meaning; in fact, however, almost everyone, and certainly commercial bankers, know that these "other things" are not of "somewhat uncertain importance."[3]

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[1] Emanuel Celler, "The Philadelphia National Bank Case: A Rejoinder," *The National Banking Review*, 1, December 1963, p. 231.

[2] P. 393 of Professor Herman's article, which appears at pp. 391-406 above.

[3] *Ibid.*

THE PHILADELPHIA CASE: REPLIES TO THE REJOINDERS

► DAVID C. MOTTER

The essential public policy issue with respect to bank mergers is whether the public interest is better served by applying the criteria of the Bank Merger Act or those of Section 7, Clayton. The Supreme Court could not answer this question in its Philadelphia decision; necessarily, the decision was confined to the Court's interpretation of existing statutes. The conclusion was reached that Section 7 was applicable. My major thesis in the September comment was that application of the Bank Merger Act would be preferable from the standpoint of the public interest. Professors Moore and Herman disagree with this thesis.

The major differences between the criteria of the two Acts are these: (1) under Section 7 the competitive criterion is controlling, while under the Bank Merger Act "banking factors" also are relevant to a merger decision; (2) the competitive criterion of Section 7 is more rigid and narrow than that of the Bank Merger Act. The consequences of these differences are substantial.

The significance of "banking factors." The so-called "banking factors" of the Bank Merger Act include the following:

> . . . the financial history and condition of each of the banks involved, the adequacy of its capital structure, its future earnings prospects, the general character of its management, the convenience and needs of the community to be served.

Professor Moore states that "(m)ost of these criteria have to do with the profitability of the corporation," and then notes that the courts will accept a failing-company defense for a merger even under Section 7. Both statements are correct, but they fail to shed much light on the relevant issues. Because of the public's special dependence on bank viability, cases may arise in which the public interest is best served by allowing a *weak* bank to be absorbed, well before the bank's condition would qualify under the failing-company defense. Even more important, one key "banking factor" is not directly related to bank profitability: "the convenience and needs of the community to be served."

Instances of local banks which fail to meet their responsibility to keep abreast of the changing and expanding banking needs of their communities are sometimes encountered. The ideal solution in such cases would be the approval by the regulatory authority of a new bank or a *de novo* branch of an "outside" bank, thus fostering competition which would redound to the public benefit. However, state regulations may prohibit *de novo* branching into the community, or may confer home office protection against establishment of a new bank, or both. Even in the absence of such prohibition, a branch or charter application may not be submitted to the regulatory authority. Finally, the community's demand for banking services may be such that only one banking facility can be supported.

In any of these circumstances, the one path which may present itself to the regulatory authority to increase the quality and breadth of banking services in the community is to approve absorption of the local bank by a larger "outside" bank. The possibility of such public benefits may be weighed under the Bank Merger Act by the regulatory authority, but is irrelevant under Section 7.

It may be argued that in instances of the type noted, little if any diminution in competition in the "local" banking market would occur, and thus no Section 7 violation would be present. Whether this is the case depends entirely upon the determination of the relevant market. A sufficiently broad definition could lead to a finding that concentration would in-

crease significantly, and *ipso facto* (according to Philadelphia case), competition would decrease. Here is an instance, therefore, in which the "convenience and needs" criterion of the Bank Merger Act may allow a positive benefit to bank customers which could not be provided under Section 7.

Two additional situations involving the "convenience and needs" criterion may be mentioned briefly. Broadly construed, this criterion would allow the consideration of possible benefits from "economies of scale" resulting from a merger. I previously noted certain problems involved in such a consideration. Also the argument that certain bank customers in large cities require the services of a very large bank can be weighed on its merits where applicable.

It is clear that the above considerations are irrelevant under Section 7 as interpreted by the courts. Two quotations from the Philadelphia decision and the Brown Shoe decision demonstrate this:

> We are clear . . . that a merger the effect of which "may be to substantially lessen competition" is not saved because, on some ultimate reckoning of social or economic debits and credits, it may be deemed beneficial.[1]
>
> . . . we cannot fail to recognize Congress' desire to promote competition through the protection of viable, small locally owned businesses. Congress appreciated that occasional higher costs and prices might result from the maintenance of fragmented industries and markets. It resolved these competing considerations in favor of decentralization. We must give effect to that decision.[2]

Thus Professor Moore's treatment of the "banking factors" only as they relate to bank profitability neglects some of the crucial distinctions between the criteria of the Bank Merger Act and Section 7. He also advances the view that the effect of a bank merger on competition may properly be the sole test for approval on the ground that "competition is believed to further the public interest in general." Yet he admits that "competition will inadequately guard the public" against the danger of deposit loss. Moore fails to explain the apparent inconsistency in his position. One may hold either that unrestricted competition in banking is consistent with the public interest or that some carefully applied restrictions on banking competition are required; it is difficult to hold both positions simultaneously.

Competition has a crucial role to play in banking, but because of the vital public interest in the maintenance of a solvent, viable and dynamic banking system, it is necessary to give some weight to other than competitive factors in formulating proper regulatory policies. The Bank Merger Act allows the regulatory authorities to consider all relevant factors in arriving at merger decisions consistent with the public interest.

Professor Herman finds it "dubious" to presume that inclusion of the "banking factors" is a virtue of the Bank Merger Act. He correctly notes that because these factors are less precisely worded than the Section 7 criterion, they allow more discretion in interpretation by regulatory authorities than the courts possess in applying Section 7. Herman adds, perhaps gratuitously, that "(i)nclusion of the 'banking factors' assures that a supervisory authority looking for a reason to approve a merger will find one." A more relevant statement may be that inclusion of the "banking factors" allows the regulatory authorities to weigh all appropriate considerations in arriving at a decision consistent with the public interest.

Professor Moore seems to imply that the stand advocating consideration of the "banking factors" as well as the competitive factor in bank merger cases represents a frontal assault on the whole antitrust framework. This is not the case, as

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[1] 374 U.S. 371.
[2] 370 U.S. 333.

can be seen from the distinction drawn above between the role of competition in unregulated industries and in the banking industry. The fact that the Bank Merger Act's competitive criterion itself is broader than that of Section 7 does, however, have some implications for antitrust policy in general.

Competitive criteria in the Bank Merger Act and Section 7. The regulatory authorities are enjoined by the Bank Merger Act to consider "the effect . . . on competition (including any tendency toward monopoly)" of a proposed merger. It is obvious that this criterion allows a broader consideration of competitive effects than does the criterion embodied in Section 7, which makes illegal any merger where there is a reasonable probability that a substantial lessening of competition will occur in *any one* relevant market. Two principal operational differences stem from these differences in criteria: (1) under the Bank Merger Act, the regulatory authorities can weigh the total competitive effect when a number of banking markets are affected, often differently, by a merger; (2) that Act allows consideration to be given to the probable post-merger *level* of competition, as well as the effect on the premerger level. This is not the case under Section 7, as is illustrated by this quotation from the Brown Shoe decision: "remaining vigor [of competition] cannot immunize a merger if the trend in that industry is toward oligopoly."[3]

Concentration and competition. Professor Moore presents an extended analysis in an attempt to demonstrate that the larger the share of the market held by a firm, the less likely it is that the firm can institute a price reduction without retaliation. Providing one adds a qualification concerning the size distribution of sellers, this is not a controversial theoretical conclusion. It is interesting to note, however, that when Moore applies this analysis, he admits that from it "we can conclude nothing about the state of competition either before or after the merger. . . ." This statement would seem to have at least as much relevance for public policy as his theoretical conclusion, which would apply to *any* merger of competing firms.

[3] 370 U.S. 333.

► BERNARD SHULL

Herman emphatically denies that "near monies" offered by other financial institutions are effective substitutes for checking deposits held as a store of wealth. He supports this contention with the argument that ". . . it is unlikely that demand deposits held as a store of wealth will be very elastic to changes in service charges on checking accounts." He goes on to argue that commercial banks need not be concerned with competing assets because of "flow back" and their ability to discriminate among customers.

The significance of "money substitutes" and the irrelevance of concentrating on service charges alone need not be reviewed here. The *relative terms* on which demand deposits and "money substitutes" are offered have changed, and the effects on relative holdings are impossible to ignore. Moreover, individual banks cannot depend on "flow back" to offset this competition any more than regulatory authorities can depend on a rising velocity of money, resulting from the same competition, to restrain the power of individual banks. The power to discriminate should be considered, and it was. I refer

the reader to note 55 and p. 204 of my original article.

Banks are the most important suppliers of short-term business loans. But business in general has become less dependent on banks in recent years. This is due in part to the increased importance of internal funds. And Selden has shown that the commercial paper market has become a more important potential source of funds, *despite* the decline in the number of participants. These sources are of principal importance to large firms, but small business obtains advantages through trade credit and the growth of other lending institutions.

Herman camouflages the real issue in arguing that commercial banking is a "sensible" substitute line of commerce for demand deposits or business loans. The important question is whether courts, in future cases, should look at such lines as business loans closely or not at all. The disadvantage of not looking at all is that important evidence on differing local conditions can be ignored. The advantage is that merger decisions will be expedited by restricting a type of evidence defendants would normally wish to introduce. There is a choice to be made here, and service will not be done by ignoring it.

Current Legal and Regulatory Developments

During the final quarter of the past year there were a number of significant changes in the laws and regulations affecting the operations of national banks.

I. *Lending Limits*

The Comptroller of the Currency has ruled on the question of whether the proceeds of *capital notes and capital debentures* issued by national banks pursuant to the Comptroller's Corporate Practices Regulation (12 C.F.R. 14.5) may be included in the aggregate of unimpaired capital funds in determining the limit on loans by a national bank to a single borrower, as required by the provisions of 12 U.S.C. 84. He has held that, where such debentures, notes or other similar obligations are subordinate in right of payment to the prior payment in full of all deposit liabilities of the bank, their proceeds may be included as part of the aggregate amount of unimpaired capital stock and unimpaired surplus funds for the purpose of the computation of the limit on loans to an individual borrower contained in 12 U.S.C. 84. Section 84 provides that "the total obligations to any national banking association of any person, copartnership, association, or corporation shall at no time exceed 10 per centum of the amount of the capital stock of such association actually paid in and unimpaired and 10 per centum of its unimpaired surplus fund."

An examination of the legislative history of the lending restrictions contained in 12 U.S.C. 84 indicated that protection of depositors is the primary purpose of limiting the aggregate of loans to a single borrower to a stated percentage of the bank's capital and surplus. It was reasoned that, since capital debentures and notes, to the extent that they are subordinated to deposit liabilities, stand in the same relationship to depositors as traditionally recognized forms of capital and surplus, they may properly be included in the loan base. The fact that capital notes and debentures take precedence over shareholder interests was treated as immaterial in the same way that the precedence of preferred over common shareholders is regarded as immaterial.

II. *Real Estate Loans*

National banks are permitted under 12 U.S.C. 371 to make a *real estate loan secured by a leasehold* where: (1) the leasehold is on improved real estate; (2) the security is a first lien on the leasehold; (3) the security instrument is a mortgage, trust deed or similar instrument; (4) the loan matures at least 10 years before the date the lease is due to expire; (5) amortization of the loan is provided as in the case of loans secured by first liens on real estate owned in fee simple; and (6) there is compliance with such rules and regulations as may be prescribed by the Comptroller of the Currency under the authority of the real estate lending statute.

A major revision in the Comptroller's

regulation affecting the authority of national banks to make real estate loans secured by a leasehold became effective on December 24, 1963. The principal effect of the new regulation is to replace a previously-used standard for appraising leasehold values which had frequently resulted in appraisals substantially below the market value of the leasehold. The new regulation provides that the "appraised value" of a leasehold, for the purpose of the statutory requirements (of 12 U.S.C. 371), shall be determined by the use of accepted and reliable methods of appraising leasehold values including, in areas where such information is available, a consideration of the sales prices of comparable leaseholds.

Another important change in the regulation provides that where leasehold loans are made in principal reliance on the insurance or guaranty of a governmental agency, they are not subject to any of the other provisions of the leasehold loan regulation. This applies to leasehold loans the policy expressed in many recent rulings of the Comptroller that a loan is not a "real estate loan" within the meaning of the statute merely because it is secured by real estate, but only where the bank relies upon a first lien on real estate as the primary security for the loan.[1]

Two recent rulings with respect to *real estate which may be considered "improved"* within the meaning of the applicable statute involved construction or development which contributed substantially to the value of the real estate. In one ruling, a trailer park consisting of 30 trailer sites with facilities for sewage, running water, and electricity was held to qualify as improved real estate. In the other ruling it was held that a commercial recreation area with 75 camp sites having picnic tables, tent bases, toilet facilities, fire places, dock facilities, and a beach is improved real estate.[2]

The Comptroller has recently held that where a national bank makes a loan in primary reliance upon *private company insurance or guaranty*, rather than the insurance or guaranty of a government agency, the loan does not constitute a real estate loan within the meaning of the statute (12 U.S.C. 371) even though the bank as a matter of prudent banking practice takes additional security in the form of a real estate lien.[3] The Comptroller, however, has held that where a bank relies on private insurance or guaranty as primary security for a loan, its files should contain evidence to demonstrate that the bank is justified in placing such primary reliance on the insurance or guaranty contract.

III. *Corporate Savings Accounts*

The Comptroller has ruled that a national bank may, subject to withdrawal requirements and interest rate limitations imposed by applicable regulations, accept savings accounts without regard to whether the funds deposited are to the credit of one or more individuals, or of a corporation, association, or other organization, whether operated for profit or otherwise. In setting forth the legal bases for this ruling, the Comptroller stated that the statutory authority of the Board of Governors of the Federal Reserve System (contained in 12 U.S.C. 461) to define the terms "time deposits" and "savings deposits" extends only to the terms of the deposit contract such as a descrip-

[1] In this connection, see *The National Banking Review*, 1, September 1963, p. 135.

[2] Other examples of improved real estate within the meaning of the applicable statute appeared in *The National Banking Review*, 1, September 1963, p.135, and 1, December 1963, pp. 261, and 262.

[3] *The National Banking Review*, 1, September 1963, p. 135, and 1, December 1963, p. 261.

tion of withdrawal requirements and interest rate limitations, and that there is nothing contained in the statute which would preclude, or would authorize a regulation which would preclude, the maintenance of such accounts by any class of depositor.

IV. *Loans to Executive Officers*

$2,500 is the maximum amount of money which a national bank may loan to one of its "executive officers." The Comptroller has recently stated in an interpretative ruling that the term "executive officer," as contemplated by the provisions of 12 U.S.C. 375a, means any officer of a bank who, by virtue of his position, has both voice in the formulation of the policy of the bank and responsibility for the implementation of such policy. Under this definition a person who acts solely as a director would not be an "executive officer." Similarly, those officers whose sole responsibility is for the administration of the bank's policies are excluded from the definition "executive officer." Under this definition, therefore, it is the responsibility of and the functions performed by the individual, and not his title, which determine whether he is an "executive officer."

It was noted by the Comptroller that banks, unlike most other businesses, often have a number of responsible employees who are given official titles for various reasons, including additional prestige in relations with the public, the execution of documents and the performance of other ministerial functions. Such employees are performing administrative functions and are not generally considered to be executive officers. The Comptroller also noted that although ordinarily the president, the principal vice president, and the cashier are "executive officers," officers with other titles who perform the functions ordinarily performed by the president, the principal vice president and the cashier must also be regarded as "executive officers." Concluding that the provisions of 12 U.S.C. 375a do not authorize the expansion, by definition, of the term "executive officers" to include persons who do not in fact and in law exercise executive functions, the Comptroller has ruled that, when a national bank makes a loan or extends credit to one of its officers, it should apply the standards contained in the foregoing definition in determining whether the loan or extension of credit is subject to the limitations of the statute.

V. *Lease Financing*

It has previously been noted that a national bank may acquire personal property upon the specific request of and for the use of a customer and incur such obligations as may be incident to becoming an owner and lessor of such property.[4] The Comptroller has recently ruled that, since lease payments in connection with direct leasing transactions constitute compensation for the use of property and not the payment of the principal of and interest on a debt, such lease payments are not subject to the interest rate limitations of 12 U.S.C. 85 or the usury provisions of 12 U.S.C. 86.

VI. *Accelerated Depreciation*

In order that national banks may benefit from widely practiced and generally accepted accounting procedures available under the Internal Revenue Code to other taxpayers, the Comptroller has ruled that a national bank may, with respect to certain newly-acquired assets selected by the bank, use, for income tax purposes, one of the accelerated methods of depreciation

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[4] For previous rulings, see *The National Banking Review*, 1, September 1963, pp. 136-137 and 1, December 1963, pp. 262-263.

set forth in Section 167(b) of the Internal Revenue Code of 1954, as amended, and apply a generally accepted non-accelerated method for financial accounting purposes. The ruling also stated that once such a dual depreciation treatment is applied to a given asset it must be continued until the asset is fully depreciated, and that upon the adoption of this practice accounting recognition must be given to deferred income taxes applicable to the excess of depreciation allowed for income tax purposes over depreciation expense recorded for financial accounting purposes, where such taxes are material in amount.

VII. *Annual Shareholders Meeting*

The Act of December 23, 1963, (Pub. L. 88-232) amended 12 U.S.C. 71 and 75 so as to require that the date of the annual meeting of shareholders of a national bank should be specified in the bank's bylaws rather than in the Articles of Association. Further, the bill abolished the requirement that the annual meeting be held in the month of January. Under this amendment national banks will be enabled to mail annual financial reports to shareholders at the same time that their proxies are solicited for the election of directors at the annual meeting.

VIII. *Window Dressing*

Window dressing in bank reports has been the subject of a study by the Legal and Monetary Affairs Subcommittee of the Committee on Government Operations of the House of Representatives. That committee's report to the 88th Congress on this subject defined "window dressing" as the use of temporary non-business-purpose transactions to enable a bank to state a more favorable financial showing at a particular time than would normally be the case. In order to eliminate the practice of window dressing and at the same time preserve the statistical and supervisory value of call reports, the Committee has recommended that "the Federal bank supervisory agencies make a coordinated, concerted, continued use of their powers of moral suasion to have the banking community refrain and desist from the use of nonpurpose transactions and from window dressing of bank reports statements." The committee has also recommended that "the Federal bank supervisory agencies adopt uniform rules or regulations under which, commencing with the second call date in 1964: (a) Every bank shall be required (1) to include in every required and voluntary report and statement of condition a certification that no window dressing is contained therein, and (2) to file with its Federal supervisory agency as many copies of such reports and statements as such agency shall require. (b) Any supervisory agency which finds through bank examination or otherwise that contrary to such certification a bank has engaged in window dressing shall give public notice of its findings by publication of the name of the bank, the extent of the window dressing and other details thereof in the Federal Register and by press release; and shall refer the matter to the Attorney General for possible prosecution under the false statements statutes."

IX. *Service Charges*

The Comptroller has announced the policy that the offering of service-free checking accounts by newly organized and chartered national banks must receive his prior approval. This approval may be subject to such limitations as are deemed appropriate for the particular bank which wishes to make such an offering. Examples of conditions which may be imposed by the Comptroller are: limitation of free service privileges to individuals; a specified maximum number of such accounts which may be accepted; a

designated minimum balance which must be maintained at all times in such accounts; the revocation of such privileges if the account at any time falls below the designated minimum balance; the requirement that all "Charter Accounts" be opened in person on the premises of the bank; a provision in the deposit contract that it may be abrogated at the time of any merger, consolidation, sale or reorganization of the bank; a provision in the deposit contract that it may be abrogated or modified at any time in the discretion of the Comptroller of the Currency; and a provision that the deposit signature card must stipulate all conditions of the plan.

X. *Community Development*

It has been noted earlier that a national bank, as a necessary business expense, may make reasonable contributions to agencies and groups to further the fiscal, economic and social development of its community.[5] This rule has recently been extended to provide that such contributions need not be restricted to cash donations, but may take the form of transfers of property such as improved real estate or investments in a corporation organized to carry on community development activities. The bank may purchase the capital stock or debentures of such a corporation or lend to it on especially favorable terms and conditions.

XI. *International Operations*

At the present time national banks are operating more than 130 foreign branches and some 15 subsidiaries engaged in foreign banking or financing, and the number is steadily increasing. This accelerated entry of national banks in the area of international banking and financing through the use of foreign branches and so-called Edge Act and "agreement" subsidiaries has prompted the Comptroller to reexamine supervisory procedures with respect to those operations.

The ultimate soundness of a national bank may be significantly affected by its foreign operations. Accordingly, in keeping with the primary responsibility of the Comptroller's office to ensure that the financial condition of national banks is in no way jeopardized and to obtain the information required to carry out the supervision of the international operations of those banks, proposed regulations have recently been published which set certain requirements for national banks desiring to enter the international field for the first time or to expand their present activities in that area.

The proposed regulations require the prior approval of the Comptroller before any national bank may open or move a foreign branch, invest in an Edge Act or "agreement" corporation, cause a subsidiary corporation engaged in foreign banking to open a domestic agency or a foreign branch or agency, or acquire controlling interest in a bank or other corporation organized under foreign law. The proposed regulation provides that in passing upon an application for approval of an international operation the Comptroller will consider certain factors, including the general financial condition of the bank, the adequacy of its capital and surplus in relation to the character and condition of its assets and its deposit liabilities and other corporate responsibilities, the general character and ability of the management of the bank, the history of the bank's activities, if any, in international banking or financing, whether the bank has sufficient capital and surplus to meet legal requirements, and whether the proposed international operation is consistent with the interests of the United States. Also included in the proposed regulation is a provision that, in granting

[5] *The National Banking Review*, 1, September 1963, p. 137.

prior approval for a national bank to engage in an international operation, the approval shall be subject to such terms and conditions as the Comptroller may prescribe. However, it is not intended that approval must be obtained as to past transactions or as to existing corporate relationships.

XII. *Trust Department Annual Reports*

A revised trust department annual report to the Comptroller's Office contains several changes from the report which national banks were previously required to make of their trust activities. In this new report, all accounts for which a bank has investment responsibility, as well as certain accounts administered as agent under employee benefit plans, must be included. Probably the most significant change is the requirement that assets of accounts with investment responsibility must be reported at market values taken from written review data as of the date of the last written review. Also of importance is the requirement that assets of accounts administered under employee benefit plans appear in this annual report. Formerly such accounts had been covered only in the Comptroller's report of examination of the trust department.

Although the Comptroller's Office will treat these annual reports as confidential, the reporting banks have been advised that they may in their total discretion publish their reports in whole or in part, and they are encouraged to do so.

XIII. *Collective Investment Funds*

A recent ruling of the Comptroller of the Currency concerned expenses incurred in the administration and operation of a collective investment fund. He held that in order properly to conform to the requirements of Section 9.18 of Regulation 9 and the rules and regulations of the Office, such expenses may be charged to (1) the principal or income account for the reasonable cost of an audit performed by independent public accountants, but shall not include the cost of audit by auditors of the bank; (2) the income account if a charge is made for the reasonable expense incurred in servicing mortgages held in a collective investment fund; (3) the principal or income account, whichever is applicable, for all costs, commissions, taxes, transfer taxes, legal fees and other expenses associated with the purchase or sale of assets of a collective investment fund; and (4) the principal or income account, whichever is applicable, for a management fee provided that when such fees are taken from the fund the proportionate amount of the fee charged to the participating trusts, if any, should not exceed the compensation permitted in such participating accounts where they are not invested in the collective investment fund.

The Comptroller held further that the following expenses may not be charged against the fund but shall be absorbed by the bank: (1) the cost of establishing or reorganizing a collective investment fund; (2) the cost of printing, publishing and distributing the full financial report and the publication of the summarized financial report; and (3) all other costs incurred in the operation and administration of a collective investment fund, except those described in the preceding paragraph.

XIV. *Successor Fiduciary Accounts*

The Comptroller has noted that successor fiduciary accounts are not in every case receiving proper administrative review by national banks. He has stated that a successor fiduciary must put in order any wrongdoing of a predecessor and that, therefore, a successor fiduciary must examine the administration of such an account as a duty to beneficiaries. If the successor finds, upon investigation, acts

of improper administration, the successor should refuse the appointment or protect the account by asserting liability against the predecessor. Because of the potential liability associated with a successor fiduciary account, the Comptroller has stated that banks must exhibit proof in the form of a minute that such an investigation was conducted. The name of the person conducting the investigation should also be noted.

Representatives in Trusts have been instructed that, in the course of their examination of the trust departments of national banks, they should investigate the policy of each bank to determine whether the acts of predecessor fiducaries are a matter of inquiry and whether such inquiries are supported by minutes. In the event the minutes of the bank do not reflect that such investigation has been made, the Representative will review the administration of the predecessor fiduciary, including receipt of assets and income, disbursements, and analysis of investments, in the light of the trust instrument. The Representative will also ascertain whether the bank requires, where possible, that a predecessor accounting be filed and allowed by judicial process before it accepts such an appointment.

XV. *Messenger Service*

It has been noted that, to meet the requirements of its customers, a national bank may provide messenger service by means of an armored car or otherwise, pursuant to an agreement wherein it is specified that the messenger is the agent of the customer rather than of the bank.[6] The Comptroller has stated that deposits collected under this arrangement are not considered as having been received by the bank until they are actually delivered to the teller at the bank's premises, and that a check is considered as having been paid at the bank when the money is handed to the messenger as agent for the customer.

XVI. *Money Orders*

It has been recognized in a ruling of the Comptroller that a national bank may designate bonded agents to sell the bank's money orders at non-banking outlets. In his rulings, the Comptroller noted that such a draft, signed by an authorized officer or the selling agent of the bank, is closely akin to a cashier's check on which the bank is both drawer and drawee, and which is accepted simultaneously with its issuance. Since, therefore, in such circumstances the bank is solely liable for payment upon proper presentation and demand, the ruling advised that the responsibility of both the bank and its agent should be carefully defined in a written agreement setting forth the duties of both parties and providing for a division of fees.

XVII. *Conservatorship*

The Comptroller of the Currency during the past quarter placed a newly-opened national bank in conservatorship under the authority vested in him by the Bank Conservation Act (12 U.S.C. 201 et seq.). The circumstances which gave rise to the exercise of this now rarely-used power related to an excessive amount of business, and not its lack, such as precipitated many conservatorships in years past.

When a new national bank opened for business in Tulsa, Oklahoma, on August 12, 1963, it invited legal and natural persons to become charter depositors with the privilege of having checking accounts free of service charges and without a minimum balance requirement. More than 20,000 charter accounts were opened

[6] *The National Banking Review*, 1, December 1963, p. 264.

during the three weeks of this offer, and the bank fell behind in its posting of items. Additional personnel required to service these accounts produced a heavy drain on the bank's initial capital. On November 8, 1963, the Comptroller concluded that although the bank was solvent, it was his duty to conserve the assets of the bank for the benefit of the depositors and other creditors, and he, therefore, on that date appointed a conservator.

As the conservatorship progressed, it became increasingly apparent that, before the bank could be permitted to reopen, additional capital and new management would be required. When a proposal was made to supply these needs through the organization of a new national bank which would purchase the assets and assume the liabilities of the old bank, the Comptroller upon the request of the directors of the old bank returned the affairs of the bank to the directors in order to permit them to accept the proposal and enter into the purchase and sale agreement. Pursuant to the emergency authority contained in 12 U.S.C. 181, the Comptroller waived the requirement for approval of the agreement by the old bank's shareholders. The new bank commenced the business of banking on December 2, 1963.

XVIII. *Litigation Involving Decisions of the Comptroller*

The Comptroller's *issuance of a branch certificate* has recently been contested in two different states. In one action, a national bank is seeking (1) a declaratory judgment that the approval granted by the Comptroller to another national bank to establish a branch is in violation of the applicable branching laws, and that the issuance of a certificate for the establishment of the branch would likewise be in violation of such laws; (2) to enjoin the defendant Comptroller from issuing the branch certificate; and (3) to enjoin the defendant bank from establishing or operating the branch. The only issue raised by the complaint is whether the Comptroller abused his discretion in finding that the branch of the defendant national bank would be in a village separate and distinct from the village in which plaintiff's branch is located, and therefore unlawful. *Manufacturers National Bank of Detroit* v. *James J. Saxon, Comptroller of the Currency, and Michigan Bank, N. A.*, Civil Action No. 2460 (D.C.E.D. Mich.). In the other action, a state banking corporation is seeking (1) a declaratory judgment that the issuance by the Comptroller of a certificate authorizing the establishment and operation by a national bank of a branch bank is in violation of the applicable branching laws, and (2) to enjoin the defendant bank from operating the branch. The complaint also requests a temporary restraining order against continued operation of the branch during the pendency of the action. *North Madison Bank* v. *National Bank of Madison, Indiana, and James J. Saxon, Comptroller of the Currency,* Civil Action No. NA 63-C-76, (D.C.S.D. Ind. 1963).

Litigation over the Comptroller's issuance of a branch certificate which resulted in a summary judgment for the Comptroller has been appealed to the United States Court of Appeals for the District of Columbia. The decision of the District Court[7] sustained the Comptroller's position that his action had complied with the branch location requirements of 12 U.S.C. 36, that *ex parte* contacts such as were made with the Comptroller were not prohibited, and that the opening by the defendant national bank in temporary quarters did not constitute a new branch application such as might have required investigations by

[7] *The National Banking Review*, 1, September 1963, p. 143.

lower echelons in the Office of the Comptroller. *The Union Savings Bank of Patchoque et al* v. *James J. Saxon, Comptroller of the Currency et al.*, Civil Action No. 245–62 (D.C.D.C. 1962).

A law suit has been brought as the result of a national bank's being placed in *conservatorship*[8] by the Comptroller. Following the termination of the conservatorship and the transfer of the old bank's assets and liabilities to a new national bank, a complaint was filed by an organizer, director and stockholder of the old national bank. The relief sought includes a rescission of all documents of sale of assets to and assumption of liabilities by the new bank, damages from the defendant conservator and the new national bank, and the appointment of a receiver to take charge of the operations of the new bank for the preservation of the assets of the old bank. This action was originally brought in a state court but has since been removed to a Federal district court. *S. Paul Hazen* v. *Southern Hills National Bank of Tulsa and William H. Greenfield, Conservator of Southern Hills National Bank*, Civil Action 5842 (D.C.-N.D. Okla.).

An appeal has been taken to the United States Court of Appeals for the Eighth Circuit from a district court decision[9] that a *merger* of three state banks into a national bank and the operation of the three state banks as branches of the national bank was in accordance with the applicable branching laws and the Bank Holding Company Act of 1956, 12 U.S.C. 1841–1848. In addition to this appeal to the United States Court of Appeals for the Eighth Circuit, litigation, which involves the legality and applicability of certain branch location restrictions contained in rules and regulations issued by the state banking commission, has reached the South Dakota Supreme Court.[10] Inasmuch as these rules and regulations are in issue in the appeal before the Eighth Circuit, the court of appeals has temporarily stayed further proceedings before it in that appeal pending an anticipated decision of the state supreme court.

In another case,[11] a petition for a writ of certiorari to the United States Court of Appeals for the District of Columbia Circuit has been filed in the United States Supreme Court by the Comptroller and a national bank, the *chartering* and establishment of which was held to have been in violation of the applicable branching laws. *Whitney National Bank* v. *Bank of New Orleans and Trust Company et al.*, and *James J. Saxon* v. *Bank of New Orleans and Trust Company et al.*, 323 F. 2d 290 (D.C. Cir. 1963).

In a stockholder's derivative suit, it was contended that an agreement and proposed *consolidation*, approved by the Comptroller of the Currency, of a state bank with a national bank should be adjudicated as unlawful. The court denied the relief sought and noted that no one's stock was being bought at a premium, and that there was no hint of any threatened removal from office which might be eliminated by the merger such as might taint with self-interest the discretion of the affected directors. The court rejected the proposition that the mere obtaining of a directorship on the board following merger or consolidation creates a disqualifying self-interest. It noted that if such were the case many mergers would be impossible, and held that in the absence of special circumstances it would

[8] For a discussion of this conservatorship, see this issue of the *Review*, pp. 431-432.

[9] *State of South Dakota* v. *National Bank of South Dakota*, 219 F. Supp. 842 (D.S. Dakota 1963), discussed in *The National Banking Review*, 1, September 1963, p. 143.

[10] *Livestock State Bank* v. *State Banking Commission of South Dakota, et al.*

[11] *The National Banking Review*, 1, September 1963, p. 143.

be presumed that such an arrangement was indispensable to the interest of both the old and new corporations. *Security Trust Company* v. *Dabney*, 372 S.W. 2d 401 (Ky. 1963).

In an action for judicial supervision of a proceeding involving the dissolution of a mutual savings bank, it was held that the *transfer* by a mutual savings bank *of* its *assets and liabilities* to a national bank, which purchased such assets and assumed such liabilities with the written consent and approval of the Comptroller of the Currency, was within the authority of both the mutual savings bank and the national bank involved. It was held further that the transaction was both legal and executed within the requirements of all applicable law. *In Re Cleveland Savings Society*, 192 N.E. 2d 518 (Ohio 1961).

XIX. *Other Litigation*

National banks contested *venue* in several actions brought against them. In an action to cancel a conditional sales contract and to recover payments made thereon, the United States Supreme Court upheld the position that actions brought against national banks outside of the district, county, or city in which they are located must be dismissed for lack of venue, because 12 U.S.C. 94 provides that suits against national banks must be brought in the Federal court of the district in which the national bank is established, or in a state, county, or municipal court in the county or city in which the national bank is located having jurisdiction in similar cases. *Michigan National Bank* v. *Hills*, 372 U.S. 591 (1963). In a remand of the case for consideration by the state court of the question of whether the national bank had, under the circumstances, waived its immunity from suit in a district, county, or city other than that in which it was located, the Nebraska Supreme Court held that a national bank is not required to make its objection to venue by a special appearance, but rather it may raise the defense in its answer. That court also held that a provision in a conditional sales contract that all matters relating to the execution, interpretation, validity, and performance of it shall be governed by the laws of Nebraska is not a waiver of privilege from suit in Nebraska by a national bank assignee of the contract. *Hills* v. *Burnett*, 125 N.W. 2d 66 (Neb. 1963). Involving similar issues is the case of *Bair* v. *Michigan National Bank*, 124 N.W. 2d 926 (Neb. 1963).

A different but not conflicting result was reached in another case in which a national bank contested venue. In that action, for a loss allegedly sustained by trust beneficiaries as the result of mismanagement of a trust estate, the defendant national bank contended that such a suit could be brought against it only in the county in which its principal office was located. The state supreme court held that the defendant national bank could not contest venue in the county court in which it qualified as trustee, to which it must render its fiduciary account, under the orders of which the estate was distributed, and to which the bank looked for fixing conpensation to which it was entitled for services rendered. The court observed that the bank, under no compulsion to handle the trust estate, sought and accepted the grant of authority as trustee from the court, the venue of which it later contested in a suit arising out of such appointment. *Lichtenfels* v. *North Carolina National Bank*, 132 S. 2d 360 (N. C. 1963).

The United States Court of Appeals, sitting *en banc*, affirmed its own prior opinion reported at *United States* v. *First National City Bank*, 231 F. 2d 14 (2nd Cir. 1963),[12] in which it was concluded

[12] A discussion of this case appeared in the December 1963 issue of *The National Banking Review*, p. 272.

that a District Court may enjoin a *transfer of funds* allegedly *held by the* defendant *national bank's foreign branch* for the accounts of a foreign corporation only to the extent that such accounts are, in fact, payable in the United States. *United States* v. *First National City Bank,* No. 196, (2nd Cir. 1964). The District Court had ruled previously that the transfer of funds allegedly held by an American bank's foreign branch for the accounts of a foreign corporation may be enjoined whether or not such funds were payable in the United States. *United States* v. *First National City Bank,* 210 F. Supp. 773 (S.D.N.Y. 1962).

In an action against a national bank by a stockholder to be declared a *duly elected director* of the bank, the plaintiff's motion for summary judgment was granted, and the state superior court held that valid, although undated, bank stockholder's proxies were presumed to be dated as of the meeting date when they were filed with the secretary of the stockholders meeting. Such proxies therefore superseded proxies of the same stockholders which were dated prior to the meeting, and the court thus ruled that the votes cast for the plaintiff on the undated proxies should have been counted and added to the total of votes for the plaintiff. *Barclay* v. *First Nat. Bank of Hightstown,* 196 A. 2d 13 (N.J. 1963).

In a proceeding by a director and stockholder of a national bank to require the bank to submit all of its *books and records* to him for *inspection,* the bank was directed by the court to submit, at its office, all of its books, records, papers, and contracts for inspection and copying by the plaintiff. The period of inspection was limited to ten business days and the plaintiff's assistants at the inspection were limited to one attorney and one accountant. *Cummins* v. *Flushing National Bank* 241 N.Y.S. 2d 520 (N.Y. 1963).

A state bank brought an action for a declaratory judgment that certain provisions of the state law did not prohibit it from engaging in certain practices with respect to *making automobile loans through insurance agents.* The state supreme court held that a state statute, which provided that the business of every bank shall be conducted only at its banking house and which restricted branch banking, prohibited the making of loans by a bank through insurance agents. The court noted that the statute in question defined the term "branch" as meaning and including any office or place of business where "deposits are received or checks paid or money lent" by the bank. In holding that these transactions may be performed only at an authorized office of the bank, the court considered a loan transaction completed and the "money lent" at the time (1) the executed note and mortgage are delivered to the representative of the bank, and (2) the customer is authorized by the bank to draw checks thereon. *Continental Bank and Trust Company* v. *Taylor,* 384 P. 2d 796 (Utah 1963).

A state attorney general brought an action for discovery and for an order directing a bank to pay certain *unclaimed money or property* into the state treasury without escheat. The supreme court of the state affirmed the lower court's dismissal of a petition and held that laches barred the attorney general's claim, without escheat, for interest and profits which the defendant bank and merging institutions had earned from 1900 to 1933, by investing trust and fiduciary funds and funds placed in the bank's possession by corporations for payment of interest on bonds. These funds were not claimed by those entitled to them. The court reasoned that the appropriate state officials were in a continuing position over a long period of time to assert such a claim, and it held that to allow the claim at this time would very greatly prejudice the defendant bank's present stockholders because of the state attorney general's long, unexplained,

and unjustifiable delay in making these claims. *Stahl* v. *First Pennsylvania Banking and Trust Co.*, 191 A. 2d 386 (Pa. 1963).

In an action for review of a banking board's denial of an *application of an industrial bank to convert to a state bank*, a state supreme court affirmed the lower court's judgment which reversed the board and ordered it to issue the state charter. The supreme court held that the board's denial of the conversion application was unjustified where: the only other commercial bank in the area, which was a family organization, imposed in addition to a regular deposit charge a "float charge" of 10¢ per $100 face value for every check deposited in it which was drawn upon another bank; paid only 1 percent on savings accounts up to $10,000, and no interest on deposits in excess of that amount; discouraged savings accounts; did not handle consumer accounts; had an extremely conservative policy; by reason of law had a lending limit to any one customer of $6,000; required that all loans of greater amounts be handled by the president of the bank as a personal matter; and made little effort to bring the greater lending capacities of correspondent banks to the community. *Banking Board* v. *Holyoke Industrial Bank*, 383 P. 2d 318 (Colo. 1963).

In an appeal by a national bank from the action of a state department of banking in approving articles of incorporation for a *new competing bank* which would be located almost directly across the street from the national bank, the state court stated that a decision of the state department of banking or of the state banking board will be sustained unless it is based upon facts or conclusions not adequately supported by the evidence, or unless the department or board committed a clear abuse of discretion, exceeded its power, or based its decision, conclusion, or order on an erroneous interpretation of law. The court held that in this particular case the evidence did not show that the secretary of the department of banking abused his discretion in approving articles for a proposed bank, which made a showing that: within its claimed trade area, businesses of certain businessmen had increased substantially during the past ten years; the median income for the bank's municipality had more than doubled; the total income for the municipality had nearly doubled; home ownership had increased 10 percent; and deposits of the plaintiff national bank had almost doubled from 1950 through 1961. *Blairsville National Bank* v. *Myers*, 187 A. 2d 655 (Pa. 1963).

In an attempt by a national bank to enjoin a state bank and a state comptroller in connection with an alleged unlawful operation of a *branch office*, the state supreme court held that the state comptroller could not be held to have abused his discretion in permitting the opening of a branch office near a town where the national bank previously opened a branch bank, when the statute contained no prohibition against the comptroller's action. The court stated that, on the basis of the state bank's prior efforts to open an office in the particular area, the comptroller reasonably believed that, as an equitable proposition, the state bank had presented a strong claim for its right to have a place of business in the area around the town in question. *First Nat. Bank of Canton* v. *Canton Exchange Bank*, 156 So. 2d 580 (Miss. 1963).

In another action brought by a national bank to compel state banking authorities to revoke a *branch permit* granted to a state bank, the state supreme court held that, contrary to the contention of the plaintiff, the proper proceeding to obtain judicial review of granting a branch permit was an action brought under the state administrative adjudication act and not an action of mandate. The national bank unsuccessfully contended that such act provided for review of a denial or revoca-

tion of a branch permit but not for review of the granting of a branch permit. *State* v. *McCord*, 189 N.E. 2d 583 (Ind. 1963).

In an appeal from a denial by a state department of banking, of an application for the establishment of a *branch bank*, a state supreme court held that a statute, which provided that a decision of the banking board in either approving or disapproving action of the department of banking relating to branch applications will be binding on the department, means that the decision of the board shall be binding on the department in the particular application which was at that time before the board, but that it does not mean that the board's decision in a particular case should forever bind the department with respect to subsequent or different applications. *First Bellefonte Bank and Trust Co.* v. *Myers*, 188 A. 2d 726 (Pa. 1963).

In an action against the Federal Deposit Insurance Corporation, recovery was sought for damages from alleged slanderous statements by the Corporation's general counsel which were made in open court during litigation in a Federal court. In dismissing the action, the court held that the Federal Deposit Insurance Corporation is a "*federal agency*" as defined in the Federal Tort Claims Act, and, therefore, a tort action for money damages for alleged slander could not be maintained directly against it where such recovery from the government was excluded by the Federal Tort Claims Act, even though the Act creating the Federal Deposit Insurance Corporation provided that it could sue and be sued. *Freeling* v. *Federal Deposit Insurance Corporation*, 221 F. Supp. 955 (W.D. Okla. 1962).

XX. *Proposed Legislation*

Of the bills discussed or mentioned in the December 1963 issue of the *Review*,[13] the only one which has been enacted into law relates to a change in the date for the regular annual meeting of national bank shareholders.[14] There follows a summary of the purposes of certain other bills introduced in the eighty-eighth Congress, beyond those discussed in the December 1963 issue of the *Review:*

1. require the payment of interest on certain funds of the United States held on deposit in commercial banks, and provide for the reimbursement of commercial banks for services performed for the United States (H.R. 9686);

2. eliminate the prohibition against the payment of interest on demand deposits by national banks and by all state chartered commercial banks which are members of the Federal Reserve System or the Federal Deposit Insurance Corporation (H.R. 9687);

3. prohibit national banks, all District of Columbia banks, and state chartered commercial banks which are members of the Federal Reserve System or the Federal Deposit Insurance Corporation from performing any clerical, administrative, bookkeeping, statistical, accounting, or other similar services for its depositors, borrowers, or other customers, except to the extent that such services are a necessary incident to the proper discharge of the lawful functions of such banks as a depository, lender, trustee, or agent (H.R. 9548);

4. broaden the authority of national banks to underwrite and deal in securities issued by state and local governments,[15] and authorize federal savings and loan associations to invest in state and municipal securities (H.R. 8076);

5. establish a Federal Banking Commission to administer all Federal laws relating to the examination and supervision of banks (H.R. 5874);

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[13] *The National Banking Review*, 1, December 1963, pp. 273-277.

[14] See Section VII, *Annual Shareholders Meeting* of this article, p. 428.

[15] See also H.R. 5848 which was discussed in *The National Banking Review*, 1, December 1963, pp. 274, 275.

6. authorize the issuance by the Federal Deposit Insurance Corporation of insurance coverage of deposits in American branches of foreign banks where the operations of such branches are supervised by state banking authorities (H.R. 8295);

7. increase to twelve the number of members of the Federal Reserve Board, with the Secretary of the Treasury as Chairman; abolish the Federal Open Market Committee and transfer its powers to the new Board of twelve; modify the Federal Advisory Council, limiting its membership to 50 members plus the Comptroller of the Currency and the Chairman of the Federal Deposit Insurance Corporation; and subject the Board to regular audits by the General Accounting Office (H.R. 9631);

8. provide that interest received by Federal Reserve banks on obligations of the United States shall be covered into the Treasury as miscellaneous receipts, and authorize appropriations for the expense of the Federal Reserve banks and the Board of Governors of the Federal Reserve System (H.R. 9685);

9. broaden the investment and other powers of Federal savings and loan associations (H.R. 8606); another bill would also broaden the investment powers of Federal savings and loan associations (H.R. 9609);[16]

10. create a Federal Limited Profit Mortgage Corporation to assist in the provision of housing for moderate-income families and for elderly persons (H.R. 8941);

11. vest the Federal National Mortgage Association with fiduciary powers to facilitate the financing of its own and other mortgages, and to provide for sales of and investments in beneficial interests or participations in such mortgages (S. 2469, H.R. 9769);

12. provide for Federal Reserve support of Government bonds when market yields equal or exceed 4¼ percent (H.R. 9749);

13. amend the Small Business Investment Act of 1958 so as to provide, among other things, that companies defined in that Act may invest funds not reasonably needed for their current operations in direct obligations of, or obligations guaranteed as to principal and interest by the United States, or in savings or share accounts which are insured by the Federal Deposit Insurance Corporation or the Federal Savings and Loan Insurance Corporation (S. 298);

14. amend the Securities Act of 1933, as amended, the Securities Exchange Act of 1934, as amended, and the Investment Company Act of 1940, as amended, to provide for the regulation of collective investment funds maintained by banks which are or elect to be supervised and examined by a Federal banking agency (H.R. 9410);[17]

15. prohibit national banks, all District of Columbia banks, and state chartered banks which are members of the Federal Reserve System or the Federal Deposit Insurance Corporation from being the lessor of any personal property under any circumstances or by any means as a result of which any such bank (1) performs or is compensated for any services other than the lending of money or advancement of credit with respect to such property, or (2) acquires or may acquire any interest in such property other than as security for the repayment to such bank of money or credit advanced by it together with interest and other charges for exclusively financial services, or (3) realizes from such property in the event of default more than such repayment and charges (H.R. 9822).

ROMAN J. GERBER
Attorney, Office of the Comptroller of the Currency

[16] See also H.R. 8245 which was discussed in *The National Banking Review*, 1, December 1963, p. 276.

[17] Similar proposals contained in two other bills (H.R. 8499, S. 2223) pending before the Congress were discussed in *The National Banking Review*, 1, December 1963, p. 275.

Current Banking and Economic Developments

The surprise call for Reports of Condition as of December 20, 1963, showed that the assets of national banks rose to $170.2 billion, 6 percent more than the December 28, 1962 level,[1] but a half percent less than the 1962 increase. For the second consecutive time in at least four years, the assets of national banks rose more than those of state member banks (2.7 percent). To a very minor extent these changes reflect the fact that the number of national banks in operation at this call was 4,615—a 2.4 percent increase over the year. This increase in the number of national banks arrests a long term decline in their number. The number of state member banks declined to 1,497 in December 1963, as it has for at least the last four years, averaging about a 3 percent decline per year.

During 1963 the rise in security holdings was small for both national banks (1.7 percent) and state member banks (1.9 percent), reflecting the better alternative opportunities in the lending field. In addition to the small increase in security holdings, the fraction of national bank portfolios held in U. S. governments continued the decline of the last several years to 63.5 percent at the end of 1963. As in 1962 national banks held larger shares of their security holdings in governments than did state member banks. Two other factors are relevant—shares of total securities held in short term governments again declined in 1963, while the fraction of securities held in the form of obligations of state and local governments again rose, this time to just over 31 percent for national banks and 34 percent for state member banks. There was a rise of 20 percent in national bank holdings of these state and local securities during 1963.

Loans and discounts, net, of national banks rose by more than 10 percent to $83.4 billion in late December, while those of state member banks rose by less than 9 percent. This 10 percent increase is less than that for 1962, when the rise was over 12 percent. It reflects the rising loan/deposit ratios of national banks which, at the end of 1963, reached 55 percent—considerably higher than the 38 percent which existed at the end of 1954. During the past decade this ratio has been higher for state member banks than for national banks, which, in turn, have had a higher ratio than the insured nonmember commercial banks.

Using the conventional concept of the money supply (currency plus demand deposits), there was a much larger increase in it during 1963 than in any of the last five years. The money supply has changed as follows between December dates: 1958-59, .57 percent; 1959-60, −.44 per-

[1] Comparisons are between 1962 and 1963, or during 1963, based upon Reports of Condition for December 28, 1962, and December 20, 1963, 51 weeks, unless specified otherwise. Insured nonmember bank data for December 1963 were not available.

cent; 1960-61, 3.19 percent; 1961-62, 1.51 percent; and last year, 1962-63, 3.79 percent.

Demand deposits, the most significant component of the money supply and our chief means of payment, rose by less than one percent in national banks during 1963, and declined by over three percent in state member banks. In 1962 these deposits declined in both national banks and state member banks. Time and savings deposits rose sharply in 1963, but less than they did in 1962: national banks (1963, 14 percent; 1962, 18 percent) and state member banks (1963, 14 percent; 1962, 20 percent). The distribution between demand and time and savings deposits continues to change in the same direction as the pattern set in recent years. At the end of 1963, 40.7 percent of total deposits were in time and savings for national banks, as contrasted with 37.7 percent in 1962, and 30.5 percent in 1958.

The September 1963 Reports of Condition for national banks, analyzed in the December issue of this REVIEW, included several new series: Federal funds sold and purchased; direct lease financing; and time certificates of deposit outstanding. In varying degrees each of these items has had a significant rise between September and December 1963. On December 20, the national banks reported $1.5 billion of Federal funds sold—37.5 percent more than in September—an indication that they were putting their excess reserve balances to work. Four hundred national banks reported such transactions in December as compared to 204 in September 1963. These sales exceeded $100 million in California, Illinois, and New York, and were almost that amount in Massachusetts.

While direct lease financing is still a small item, in part because authority to undertake such activities was granted to national banks only last year, in December it was almost 5 times ($24 million) the level of 3 months earlier. Forty national banks in 24 states are engaged in this type of financing.

In December, 4,080 or 88 percent of national banks had $11.8 billion of time certificates of deposit (CDs) outstanding. In part, this 7.6 percent rise since September in the dollar volume of these certificates reflects the change by the Federal Reserve Board in the maximum rates that member banks may pay. Previous to mid-1963, banks could pay no more than 2½ percent on 3-6 months, and 3½ percent on 6-12 months, time deposits. At mid-year these ceilings were both lifted to 4 percent, which is the same as the ceiling price which banks have been permitted to pay on time deposits payable in one year or more since January 1962. An important fraction of the CDs sold in the latter part of 1963 had maturities in the 3-6 months range. It was in this range that the greatest rise took place in the permitted interest rate, and hence where the competitive effects were most marked.

There were 490 applications for national bank charters in 1963, including 30 conversions from state chartered banks. This compares with 176, including 23 conversions, in 1962. While the number of applications rose by 314 between 1962 and 1963, rejections rose from 17 to 175, and applications abandoned rose from 23 to 46. National banks chartered in 1963 numbered 190, as compared with 83 in 1962. This includes 12 in California, 15 in Colorado, 26 in Florida, and 34 in Texas, for a total of 87, or 53 percent of all primary national banks chartered. Of these 87, 75 were in three states (Colorado, Florida, and Texas) where branch banking is prohibited. The remaining 78 were distributed among 30 states. In 14 states no new national banks were chartered in 1963.

At the end of 1963, there were 7,237 branches of national banks in operation, or 790 more than at the end of 1962. This compares with an increase of 591 for the

previous year. California and New York, with increases of 115 and 106, respectively, led the states. The 1963 pattern of increases was similar to that of 1962. Besides California and New York, more than the average number of branches were opened in Indiana (21), Maryland (25), Massachusetts (26), Michigan (34), New Jersey (36), North Carolina (63), Ohio (48), Pennsylvania (68), South Carolina (27), and Virginia (56).

Of the 843 branches of national banks authorized in 1963 (including some which did not open for business by the end of the year), 60 percent—the same percentage as in 1962—were in communities of less than 25,000 population. Over 27 percent of these branches were for banks with less than $25 million of resources, about the same as in 1962.

SHERMAN SHAPIRO
Senior Economist, Office of the Comptroller of the Currency

Selected Statistical Data

Table No.	*Title of Table*
1	Number of national banks, total and principal assets of national banks, by states, December 20, 1963
2	Selected liabilities of national banks, by states, December 20, 1963
3	Selected loans and discounts of national banks, by states, December 20, 1963
4	Selected holdings of U. S. Government obligations held by national banks, by states, December 20, 1963
5	Capital accounts of national banks, by states, December 20, 1963
6	Status of applicants for national bank charters and charters issued: October 1–December 31, 1963, and calendar 1963
7	National bank charter applications, by states, calendar 1963: received, approved, rejected, abandoned, and pending December 31, 1963
8	Insured commercial banks chartered, by type of bank and state, annually 1960-63, inclusive
9	*De novo* branch applications of national banks, by states, October 1–December 31, 1963: received, approved, rejected, abandoned, and pending as of December 31, 1963
10	*De novo* branch applications of national banks, by states, calendar 1963: received, approved, rejected, abandoned, and pending as of December 31, 1963
11	Branches of national banks: in operation September 30, 1963, opened for business, discontinued or consolidated, October 1–December 31, 1963, and branches in operation December 31, 1963
12	Branches of national banks: in operation December 31, 1962, opened for business, discontinued or consolidated, January 1–December 31, 1963, and branches in operation December 31, 1963
13	Branches of national banks authorized, by community size and size of bank, October 1–December 31, 1963, and calendar 1963
14	*De novo* branches of insured commercial banks opened for business, by type of bank and state, annually 1960-63, inclusive
15	Mergers, October 1–December 31, 1963, and calendar 1963

Table 1.—Number of national banks, total and principal assets of national banks, by states, December 20, 1963

(Dollar amounts in millions)

State	Number of banks	ASSETS							
		Total Assets	Cash Assets‡	U.S. Government obligations, net	State and local securities, net	Other bonds, notes, net	Loans and discounts, net	Federal funds sold	Direct lease financing
United States	4,615	$170,232	$28,634	$33,384	$16,380	$2,408	$83,386	$1,457	$24
Alabama	73	2,052	369	436	214	22	947	22	0
Alaska	5	210	27	51	10	7	104	2	0
Arizona	3	1,400	186	183	82	12	883	4	0
Arkansas	60	957	189	190	112	21	425	2	0
California	54	24,448	3,864	3,852	2,191	247	13,240	177	19
Colorado	104	1,999	376	408	118	12	1,022	6	†
Connecticut	23	1,539	234	205	226	11	816	7	0
Delaware	5	21	2	7	1	†	10	0	0
Dist. of Col.	7	1,184	221	318	53	5	543	15	0
Florida	161	4,321	863	1,102	337	76	1,758	42	0
Georgia	55	2,166	491	311	132	17	1,149	12	0
Hawaii	2	344	45	65	26	1	182	8	0
Idaho	10	607	83	128	51	5	322	4	0
Illinois	405	16,127	2,448	3,474	1,745	486	7,523	145	†
Indiana	124	3,629	618	929	239	71	1,660	38	†
Iowa	100	1,332	271	316	105	18	591	8	†
Kansas	167	1,703	296	423	189	27	716	26	†
Kentucky	83	1,349	272	317	109	20	587	21	†
Louisiana	44	2,403	494	580	198	20	1,037	26	1
Maine	22	408	54	80	28	4	228	2	0
Maryland	46	1,679	291	350	144	21	815	20	0
Massachusetts	93	4,747	862	857	243	26	2,523	93	†
Michigan	87	6,547	1,007	1,458	754	40	3,121	36	†
Minnesota	188	3,719	680	760	269	82	1,792	45	†
Mississippi	29	530	99	115	59	4	240	†	0
Missouri	84	2,825	612	563	226	26	1,308	41	†
Montana	46	562	83	133	44	16	267	3	†
Nebraska	121	1,517	325	282	101	25	756	1	†
Nevada	3	439	55	74	52	6	231	1	0
New Hampshire	52	409	63	82	20	1	221	12	0
New Jersey	144	5,489	650	1,120	749	132	2,671	58	1
New Mexico	30	670	112	173	33	3	288	49	0
New York	211	17,467	2,796	2,821	1,998	161	8,838	149	1
North Carolina	31	1,502	312	205	113	42	778	13	0
North Dakota	39	483	58	133	49	15	214	1	†
Ohio	217	7,849	1,178	1,782	717	107	3,821	94	†
Oklahoma	211	2,875	624	636	223	41	1,281	7	†
Oregon	11	2,324	373	410	195	39	1,231	5	†
Pennsylvania	409	11,752	1,572	2,416	1,902	153	5,412	50	†
Rhode Island	4	662	64	71	138	4	370	1	0
South Carolina	25	864	169	203	56	16	395	2	0
South Dakota	33	551	78	146	34	10	270	0	0
Tennessee	74	3,212	665	594	249	40	1,572	30	0
Texas	519	12,683	2,780	2,376	1,021	171	5,848	75	†
Utah	10	631	112	68	55	3	381	1	0
Vermont	28	252	25	58	15	3	143	3	0
Virginia	123	2,758	413	539	231	53	1,423	39	0
Washington	25	3,119	504	588	252	30	1,642	17	0
West Virginia	76	894	134	296	59	10	371	6	0
Wisconsin	104	2,604	459	593	189	41	1,229	38	†
Wyoming	34	392	75	102	24	3	174	3	0
Virgin Islands	1	25	2	5	1	0	16	0	0
D. C.—all*	14	2,134	383	551	82	11	1,042	22	0

* Includes national and nonnational commercial banks in the District of Columbia, all of which are supervised by the Comptroller of the Currency.

† Less than $500,000.

‡ Cash balances with other banks and cash items in process of collection.

Note: Data may not add to totals because of rounding.

Table 2.—Selected liabilities of national banks, December 20, 1963

(Dollar amounts in millions)

State	LIABILITIES				
	Total liabilities	Demand deposits IPC	Time deposits IPC	Time certificates of deposit	Federal funds purchased
United States	$156,684	$67,740	$56,606	$11,765	$1,309
Alabama	1,878	933	606	129	0
Alaska	197	83	56	34	0
Arizona	1,312	539	535	58	12
Arkansas	880	455	250	99	2
California	22,925	8,598	10,203	576	229
Colorado	1,836	876	642	151	12
Connecticut	1,413	777	385	74	11
Delaware	19	9	9	†	0
Dist. of Col.	1,091	660	311	80	0
Florida	3,967	1,842	1,182	297	24
Georgia	1,989	1,028	450	232	1
Hawaii	313	119	114	41	0
Idaho	563	254	225	28	0
Illinois	14,799	6,190	5,630	1,302	113
Indiana	3,319	1,610	1,037	130	19
Iowa	1,224	574	360	143	20
Kansas	1,547	730	402	140	4
Kentucky	1,231	701	312	81	0
Louisiana	2,203	1,089	551	124	3
Maine	368	172	148	5	†
Maryland	1,543	750	494	52	22
Massachusetts	4,288	2,367	870	226	41
Michigan	6,113	2,222	2,642	526	22
Minnesota	3,419	1,344	1,266	717	8
Mississippi	487	221	144	69	10
Missouri	2,588	1,256	664	238	20
Montana	522	232	196	97	2
Nebraska	1,386	716	315	160	24
Nevada	409	176	147	11	0
New Hampshire	368	196	89	12	1
New Jersey	5,082	2,083	2,288	171	12
New Mexico	623	286	173	47	1
New York	16,044	6,361	5,719	1,180	269
North Carolina	1,381	747	304	125	1
North Dakota	449	209	186	135	0
Ohio	7,204	3,073	2,800	429	52
Oklahoma	2,602	1,325	714	216	11
Oregon	2,155	860	888	71	0
Pennsylvania	10,616	4,126	4,787	1,230	97
Rhode Island	612	207	316	44	14
South Carolina	795	496	116	28	7
South Dakota	512	232	186	126	0
Tennessee	2,963	1,181	979	328	15
Texas	11,642	5,525	3,048	1,230	198
Utah	582	204	246	39	11
Vermont	229	72	135	6	0
Virginia	2,518	1,112	993	118	3
Washington	2,879	1,336	1,097	64	16
West Virginia	805	369	307	27	1
Wisconsin	2,410	1,054	952	298	2
Wyoming	359	155	129	21	1
Virgin Islands	23	8	10	0	0
D. C.—all *	1,978	1,180	601	108	3

* Includes national and nonnational commercial banks in the District of Columbia, all of which are supervised by the Comptroller of the Currency.

† Less than $500,000.

Note: Data may not add to totals because of rounding.

Table 3.—Selected loans and discounts of national banks, by states, December 20, 1963

(Dollar amounts in millions)

State	LOANS AND DISCOUNTS				
	Loans secured by real estate	Loans to financial institutions	Loans to purchase or carry securities	Commercial and industrial loans	Personal loans to individuals‡
United States	$21,482	$5,823	$3,043	$29,371	$19,359
Alabama	156	51	18	338	315
Alaska	45	†	0	34	29
Arizona	235	48	25	234	199
Arkansas	84	20	11	137	116
California	4,888	925	227	4,119	2,532
Colorado	219	78	31	292	248
Connecticut	234	23	28	240	263
Delaware	5	0	0	2	3
Dist. of Col.	175	100	5	143	113
Florida	370	118	57	613	573
Georgia	188	113	18	409	385
Hawaii	84	3	8	47	32
Idaho	123	9	5	68	70
Illinois	1,243	792	506	3,385	1,272
Indiana	506	120	54	431	489
Iowa	147	27	10	136	111
Kansas	99	36	7	230	158
Kentucky	143	35	12	177	178
Louisiana	153	85	47	481	236
Maine	68	7	3	74	66
Maryland	237	56	35	249	214
Massachusetts	343	263	56	1,215	608
Michigan	1,172	221	55	739	853
Minnesota	445	149	75	642	343
Mississippi	43	9	10	79	82
Missouri	298	120	43	423	338
Montana	75	5	1	65	71
Nebraska	81	31	15	207	147
Nevada	81	9	2	69	63
New Hampshire	50	11	2	77	77
New Jersey	1,115	93	153	601	713
New Mexico	59	11	5	109	73
New York	1,926	697	588	3,845	1,716
North Carolina	94	31	16	326	289
North Dakota	72	2	1	44	44
Ohio	1,212	211	165	960	1,142
Oklahoma	202	94	18	531	292
Oregon	339	90	17	468	240
Pennsylvania	1,757	235	94	1,907	1,226
Rhode Island	170	16	18	98	53
South Carolina	56	21	15	141	144
South Dakota	68	8	2	52	53
Tennessee	200	143	63	622	466
Texas	584	386	365	2,750	1,321
Utah	142	26	24	101	60
Vermont	66	†	1	25	42
Virginia	410	62	25	379	498
Washington	429	129	27	597	352
West Virginia	135	9	4	81	140
Wisconsin	390	91	76	328	274
Wyoming	55	4	2	48	33
Virgin Islands	12	0	0	3	1
D. C.—all *	307	168	17	250	283

* Includes national and nonnational commercial banks in the District of Columbia, all of which are supervised by the Comptroller of the Currency.

† Less than $500,000.

‡ Excludes business and farm loans.

Note: Data may not add to totals because of rounding.

Table 4.—Selected holdings of U. S. Government obligations held by national banks, by states, December 20, 1963

(Dollar amounts in millions)

State	U. S. GOVERNMENT OBLIGATIONS ‡								
	Treasury bills	Certificates of indebtedness	Treasury Notes	U. S. nonmarketable bonds	Other U. S. bonds maturing within 1 year	Other U. S. bonds maturing 1—4.9 years	Other U. S. bonds maturing 5.0—9.9 years	U. S. bonds maturing after 10 years	Securities guaranteed by U. S. Government
United States	$4,999	$864	$11,992	$158	$561	$7,083	$6,881	$783	$73
Alabama	85	11	164	2	16	99	58	3	†
Alaska	7	0	16	2	†	8	18	1	0
Arizona	63	3	44	†	1	42	27	†	3
Arkansas	40	1	55	1	1	33	53	4	†
California	455	113	1,155	13	107	975	938	86	11
Colorado	101	21	130	1	4	79	66	5	†
Connecticut	26	5	122	1	2	25	23	1	†
Delaware	3	0	1	†	0	2	1	†	†
Dist. of Col.	45	4	109	6	2	87	63	2	†
Florida	146	37	370	5	14	204	298	27	5
Georgia	30	14	164	1	2	64	36	1	†
Hawaii	5	0	29	0	†	23	8	0	0
Idaho	25	1	74	†	1	17	9	†	1
Illinois	591	47	1,198	15	36	699	787	99	3
Indiana	132	23	345	5	22	230	161	11	†
Iowa	67	9	107	2	5	74	51	1	†
Kansas	78	14	142	3	10	93	78	6	†
Kentucky	42	10	136	1	7	71	47	2	†
Louisiana	62	9	232	1	4	157	99	15	†
Maine	22	1	35	1	†	9	11	1	†
Maryland	28	11	192	2	1	66	44	6	0
Massachusetts	320	22	239	2	6	112	149	6	1
Michigan	125	27	553	4	31	304	332	77	4
Minnesota	91	15	245	3	6	168	208	23	†
Mississippi	13	1	39	1	3	33	23	2	0
Missouri	167	30	162	2	7	98	88	8	†
Montana	21	2	34	†	5	36	34	2	0
Nebraska	43	7	104	2	7	70	45	3	†
Nevada	2	1	19	†	3	35	14	0	0
New Hampshire	18	3	29	†	1	14	16	1	0
New Jersey	117	16	352	10	9	250	307	58	3
New Mexico	30	5	53	1	4	44	32	4	0
New York	420	98	1,248	7	7	428	521	83	9
North Carolina	33	1	75	1	2	58	34	1	1
North Dakota	16	2	34	1	1	33	42	4	†
Ohio	286	50	738	6	83	273	300	39	8
Oklahoma	120	10	209	3	15	141	128	9	†
Oregon	7	†	50	1	18	150	179	4	1
Pennsylvania	334	28	972	13	33	475	489	69	1
Rhode Island	6	0	32	†	0	16	17	†	†
South Carolina	41	1	66	3	2	51	39	†	†
South Dakota	22	6	51	1	3	33	27	2	†
Tennessee	71	42	218	2	10	146	97	7	1
Texas	334	85	793	12	35	514	508	72	23
Utah	6	2	52	1	†	5	2	1	†
Vermont	13	1	13	1	1	12	14	4	†
Virginia	102	17	190	4	6	122	93	5	1
Washington	54	35	243	2	14	153	79	8	†
West Virginia	48	7	76	2	4	77	73	9	†
Wisconsin	65	12	252	2	6	154	95	7	†
Wyoming	26	1	29	1	4	21	18	2	†
Virgin Islands	0	1	2	†	0	1	1	0	0
D. C.—all*	85	12	194	7	3	149	96	2	†

* Includes national and nonnational commercial banks in the District of Columbia, all of which are supervised by the Comptroller of the Currency.

† Less than $500,000.

‡ Each category is net of valuation reserves.

Note: Data may not add to totals because of rounding.

Table 5.—Capital accounts of national banks, by states, December 20, 1963

(Dollar amounts in millions)

State	Total capital accounts	Debentures	Preferred stock	Common stock	Surplus	Undivided profits	Reserves
United States	$13,548	$45	$25	$3,959	$6,699	$2,529	$290
Alabama	174	0	0	52	74	36	13
Alaska	13	0	0	5	4	4	1
Arizona	88	0	0	24	46	16	3
Arkansas	77	0	0	23	32	20	2
California	1,524	0	0	440	786	288	9
Colorado	163	0	0	54	71	37	1
Connecticut	126	0	0	37	66	22	1
Delaware	2	0	0	1	1	†	†
Dist. of Col.	93	0	0	26	50	13	4
Florida	354	0	†	135	163	46	10
Georgia	176	0	0	44	83	30	19
Hawaii	31	0	0	9	14	6	2
Idaho	43	0	0	14	20	7	2
Illinois	1,328	0	0	453	629	194	53
Indiana	310	0	0	78	160	63	8
Iowa	108	0	0	27	47	32	2
Kansas	156	0	1	45	69	40	2
Kentucky	118	0	0	29	60	28	2
Louisiana	200	0	0	46	110	43	†
Maine	41	0	0	15	15	10	1
Maryland	136	0	0	35	74	21	6
Massachusetts	459	0	0	113	267	62	18
Michigan	434	0	3	119	217	86	9
Minnesota	300	0	0	86	141	67	5
Mississippi	42	0	0	11	27	4	†
Missouri	236	0	0	71	107	50	8
Montana	40	0	0	14	14	11	†
Nebraska	131	0	0	38	54	35	4
Nevada	30	0	0	15	13	2	†
New Hampshire	41	0	0	8	21	10	1
New Jersey	407	0	†	122	201	75	9
New Mexico	47	0	0	16	16	7	7
New York	1,423	30	20	419	700	246	8
North Carolina	121	0	0	34	68	17	1
North Dakota	34	0	0	11	15	8	1
Ohio	645	0	†	188	336	117	4
Oklahoma	272	0	0	73	106	90	4
Oregon	169	0	0	51	62	56	†
Pennsylvania	1,136	15	†	266	661	181	13
Rhode Island	50	0	0	14	26	11	†
South Carolina	69	0	†	16	40	12	2
South Dakota	39	0	0	13	16	10	†
Tennessee	250	†	0	69	128	46	6
Texas	1,041	0	0	365	460	186	30
Utah	50	0	0	14	26	8	2
Vermont	23	0	1	7	9	5	2
Virginia	239	0	0	69	128	40	2
Washington	241	0	0	71	101	67	2
West Virginia	89	0	0	21	44	20	4
Wisconsin	194	0	0	48	105	35	7
Wyoming	32	0	0	6	17	9	1
Virgin Islands	2	0	0	†	1	†	0
D.C.—all*	156	0	0	41	84	25	7

* Includes national and nonnational commercial banks in the District of Columbia, all of which are supervised by the Comptroller of the Currency.

† Less than $500,000.

Note: Data may not add to totals because of rounding.

Table 6.—Status of applications for national bank charters and charters issued; October 1—December 31, 1963, and calendar 1963

Applications carried over from:			
September 30, 1963		1962	
1—Conversions		1—Conversions	
117—Primary	118	58—Primary	59
Applications received:			
October 1—December 31, 1963		1963	
9—Conversions		30—Conversions	
80—Primary	89	460—Primary	490
Applications approved:			
October 1—December 31, 1963		1963	
7—Conversions		28—Conversions	
55—Primary	62	230—Primary	258
Applications rejected:			
October 1—December 31, 1963		1963	
All Primary	62	All Primary	175
Applications abandoned:			
October 1—December 31, 1963		1963	
All Primary	13	All Primary	46
Applications pending:			
December 31, 1963		December 31, 1963	
3—Conversions		3—Conversions	
67—Primary	70	67—Primary	70
New national banks chartered:			
October 1—December 31, 1963		1963	
9—Conversions		25—Conversions	
48—Primary	57	165—Primary	190

Table 7.—National bank charter applications,* by states, calendar 1963: received, approved, rejected, abandoned, and pending December 31, 1963

State	Received†	Approved	Rejected	Abandoned	Pending Dec. 31, 1963
United States	549	258	175	46	70
Alabama	6	6	0	0	0
Alaska	0	0	0	0	0
Arizona	2	2	0	0	0
Arkansas	4	3	0	0	1
California	80	32	32	1	15
Colorado	28	16	6	4	2
Connecticut	5	4	0	1	0
Delaware	1	0	1	0	0
District of Columbia	5	2	2	0	1
Florida	94	30	42	14	8
Georgia	3	1	1	0	1
Hawaii	1	0	0	1	0
Idaho	2	1	1	0	0
Illinois	10	3	1	1	5
Indiana	1	1	0	0	0
Iowa	11	5	4	2	0
Kansas	4	2	2	0	0
Kentucky	1	0	0	1	0
Louisiana	5	2	2	1	0
Maine	0	0	0	0	0
Maryland	6	4	1	1	0
Massachusetts	0	0	0	0	0
Michigan	6	4	0	0	2
Minnesota	20	11	7	0	2
Mississippi	4	1	2	0	1
Missouri	16	10	6	0	0
Montana	6	4	1	0	1
Nebraska	4	1	2	0	1
Nevada	1	0	0	0	1
New Hampshire	0	0	0	0	0
New Jersey	4	3	0	0	1
New Mexico	5	3	2	0	0
New York	8	5	0	2	1
North Carolina	1	1	0	0	0
North Dakota	1	1	0	0	0
Ohio	2	1	0	0	1
Oklahoma	48	18	13	4	13
Oregon	1	0	0	1	0
Pennsylvania	1	1	0	0	0
Rhode Island	0	0	0	0	0
South Carolina	3	2	1	0	0
South Dakota	0	0	0	0	0
Tennessee	0	0	0	0	0
Texas	104	45	40	10	9
Utah	5	4	0	0	1
Vermont	0	0	0	0	0
Virginia	18	13	4	1	0
Washington	7	5	1	0	1
West Virginia	2	1	0	1	0
Wisconsin	4	3	1	0	0
Wyoming	9	7	0	0	2

* Includes conversions.
† Includes applications pending as of the end of 1963.

Table 8.—Insured commercial banks chartered,† by type of bank and state, annually 1960-63, ‡ inclusive

State	Type of Bank	1960	1961	1962	1963
United States	N	34	26	65	165
	SM	5	2	4	3
	IN	* 77	71	*103	115
		*116	99	*172	283
Alabama	N	0	0	0	2
	SM	0	0	0	1
	IN	1	0	1	1
		1	0	1	4
Alaska	N	0	0	0	0
	SM	0	0	0	0
	IN	0	* 1	0	0
		0	* 1	0	0
Arizona	N	0	0	0	0
	SM	0	0	0	0
	IN	1	2	0	2
		1	2	0	2
Arkansas	N	0	0	1	1
	SM	0	0	0	0
	IN	1	1	3	0
		1	1	4	1
California	N	3	1	5	12
	SM	0	0	0	0
	IN	2	*10	6	18
		5	*11	11	30
Colorado	N	1	0	6	15
	SM	0	0	0	1
	IN	1	1	2	2
		2	1	8	18
Connecticut	N	0	0	1	0
	SM	0	0	0	0
	IN	0	0	2	1
		0	0	3	1
Delaware	N	0	0	0	1
	SM	0	0	0	0
	IN	0	0	0	0
		0	0	0	1
District of Columbia	N	0	0	1	2
	SM	0	0	0	0
	IN	0	0	0	0
		0	0	1	2
Florida	N	9	2	8	26
	SM	0	0	0	1
	IN	7	11	14	15
		16	13	22	42
Georgia	N	2	0	0	2
	SM	0	0	0	0
	IN	* 5	1	1	4
		* 7	1	1	6
Hawaii	N	1	0	0	0
	SM	0	0	0	0
	IN	0	0	0	0
		1	0	0	0

Table 8.—(Continued)

State	Type of Bank	1960	1961	1962	1963
Idaho	N	0	0	0	1
	SM	0	0	0	0
	IN	0	0	0	0
		0	0	0	1
Illinois	N	1	5	3	2
	SM	0	0	0	0
	IN	12	7	22	10
		13	12	25	12
Indiana	N	0	1	0	0
	SM	1	0	0	0
	IN	0	0	2	1
		1	1	2	1
Iowa	N	0	2	1	4
	SM	0	0	0	0
	IN	1	2	* 1	1
		1	4	* 2	5
Kansas	N	0	2	1	0
	SM	0	0	0	0
	IN	0	2	4	1
		0	4	5	1
Kentucky	N	1	0	0	0
	SM	0	0	0	0
	IN	0	1	* 2	0
		1	1	* 2	0
Louisiana	N	0	0	3	1
	SM	0	0	0	0
	IN	3	2	3	2
		3	2	6	3
Maine	N	0	0	0	0
	SM	0	0	0	0
	IN	0	0	0	0
		0	0	0	0
Maryland	N	0	1	1	3
	SM	0	0	0	0
	IN	0	0	0	2
		0	1	1	5
Massachusetts	N	0	0	1	1
	SM	0	0	0	0
	IN	2	3	* 3	2
		2	3	* 4	3
Michigan	N	0	0	4	4
	SM	0	0	0	0
	IN	1	1	0	0
		1	1	4	4
Minnesota	N	0	1	1	8
	SM	0	0	0	0
	IN	1	0	4	6
		1	1	5	14
Mississippi	N	0	0	0	2
	SM	0	0	0	0
	IN	0	1	0	0
		0	1	0	2
Missouri	N	0	0	1	5
	SM	1	0	0	0
	IN	3	1	0	5
		4	1	1	10

Table 8.—(Continued)

State	Type of Bank	1960	1961	1962	1963
Montana	N	1	0	0	1
	SM	0	1	0	0
	IN	4	0	0	0
		5	1	0	1
Nebraska	N	0	0	0	1
	SM	0	0	0	0
	IN	1	1	2	3
		1	1	2	4
Nevada	N	0	0	0	0
	SM	0	0	0	0
	IN	0	0	0	0
		0	0	0	0
New Hampshire	N	0	0	0	1
	SM	0	0	0	0
	IN	0	0	0	1
		0	0	0	2
New Jersey	N	0	1	3	1
	SM	2	1	3	0
	IN	0	0	1	3
		2	2	7	4
New Mexico	N	1	0	1	1
	SM	0	0	0	0
	IN	1	2	3	0
		2	2	4	1
New York	N	0	1	0	1
	SM	0	0	0	0
	IN	1	0	0	0
		1	1	0	1
North Carolina	N	0	0	0	1
	SM	0	0	0	0
	IN	1	0	0	0
		1	0	0	1
North Dakota	N	0	0	0	1
	SM	0	0	0	0
	IN	0	0	0	0
		0	0	0	1
Ohio	N	0	0	0	1
	SM	0	0	0	0
	IN	1	3	0	1
		1	3	0	2
Oklahoma	N	2	1	1	8
	SM	0	0	0	0
	IN	* 2	0	4	1
		* 4	1	5	9
Oregon	N	0	0	0	1
	SM	0	0	0	0
	IN	1	0	0	1
		1	0	0	2
Pennsylvania	N	0	0	0	0
	SM	1	0	0	0
	IN	0	0	0	4
		1	0	0	4
Rhode Island	N	0	0	0	0
	SM	0	0	0	0
	IN	0	0	0	0
		0	0	0	0

Table 8.—(Continued)

State	Type of Bank	1960	1961	1962	1963
South Carolina	N	0	1	2	1
	SM	0	0	0	0
	IN	1	1	1	2
		1	2	3	3
South Dakota	N	0	0	1	1
	SM	0	0	1	0
	IN	1	0	1	0
		1	0	3	1
Tennessee	N	0	0	0	0
	SM	0	0	0	0
	IN	1	1	0	0
		1	1	0	0
Texas	N	8	5	14	34
	SM	0	0	0	0
	IN	14	7	10	16
		22	12	24	50
Utah	N	0	0	1	3
	SM	0	0	0	0
	IN	0	0	0	1
		0	0	1	4
Vermont	N	0	0	0	0
	SM	0	0	0	0
	IN	0	0	0	0
		0	0	0	0
Virginia	N	1	0	2	5
	SM	0	0	0	0
	IN	1	2	1	3
		2	2	3	8
Washington	N	1	0	1	1
	SM	0	0	0	0
	IN	2	4	3	3
		3	4	4	4
West Virginia	N	0	0	0	0
	SM	0	0	0	0
	IN	0	0	2	0
		0	0	2	0
Wisconsin	N	1	2	0	3
	SM	0	0	0	0
	IN	3	3	5	3
		4	5	5	6
Wyoming	N	1	0	1	7
	SM	0	0	0	0
	IN	1	0	0	0
		2	0	1	7
Virgin Islands	N	0	0	0	0
	SM	0	0	0	0
	IN	0	0	0	0
		0	0	0	0

N = National banks.
SM = State member banks.
IN = Nonmember insured state banks.

† For comparable data, 1953-59, see **National Banking Review,** 1, September 1963, Table 6, pp. 121-125. Data relating to national banks are on a charter basis; those for state member and nonmember insured banks are on an opened for business basis. There are minor revisions in some of the 1960-62 data. Each revised statistic is preceded by an asterisk(*), so these data supedsede the 1960-62 data in the September 1963 issue of this **Review.**
‡ End of year.

Table 9.—De novo branch applications of national banks, by states, October 1—December 31, 1963: received, approved, rejected, abandoned, and pending as of December 31, 1963

State	Received*	Approved	Rejected	Abandoned	Pending Dec. 31, 1963
United States	388	151	55	33	149
Alabama	2	1	0	0	1
Alaska	0	0	0	0	0
Arizona	9	4	1	0	4
Arkansas	3	1	1	0	1
California	55	11	18	9	17
Colorado	0	0	0	0	0
Connecticut	8	4	0	2	2
Delaware	0	0	0	0	0
District of Columbia	3	1	0	0	2
Florida	0	0	0	0	0
Georgia	7	5	0	0	2
Hawaii	0	0	0	0	0
Idaho	0	0	0	0	0
Illinois	0	0	0	0	0
Indiana	11	7	1	0	3
Iowa	0	0	0	0	0
Kansas	1	0	0	1	0
Kentucky	11	9	0	0	2
Louisiana	7	5	0	0	2
Maine	2	1	1	0	0
Maryland	21	8	2	1	10
Massachusetts	18	12	0	2	4
Michigan	30	7	3	8	12
Minnesota	0	0	0	0	0
Mississippi	1	1	0	0	0
Missouri	2	1	0	0	1
Montana	0	0	0	0	0
Nebraska	1	1	0	0	0
Nevada	0	0	0	0	0
New Hampshire	11	4	0	0	7
New Jersey	21	9	4	2	6
New Mexico	1	0	1	0	0
New York	46	22	8	2	14
North Carolina	4	0	0	0	4
North Dakota	1	0	0	0	1
Ohio	27	6	3	4	14
Oklahoma	1	0	0	0	1
Oregon	8	0	2	0	6
Pennsylvania	35	12	3	2	18
Rhode Island	0	0	0	0	0
South Carolina	4	2	0	0	2
South Dakota	1	0	0	0	1
Tennessee	11	8	1	0	2
Texas	0	0	0	0	0
Utah	2	0	0	0	2
Vermont	3	2	0	0	1
Virginia	13	4	4	0	5
Washington	7	3	2	0	2
West Virginia	0	0	0	0	0
Wisconsin	0	0	0	0	0
Wyoming	0	0	0	0	0

* Includes applications pending as of the end of September 1963.

Table 10.—De novo branch applications of national banks, by states, calendar 1963: received, approved, rejected, abandoned, and pending as of December 31, 1963

State	Received*	Approved	Rejected	Abandoned	Pending Dec. 31, 1963
United States	1,030	674	123	84	149
Alabama	11	10	0	0	1
Alaska	13	8	2	3	0
Arizona	24	16	4	0	4
Arkansas	12	10	1	0	1
California	157	79	36	25	17
Colorado	0	0	0	0	0
Connecticut	29	21	2	4	2
Delaware	1	1	0	0	0
District of Columbia	9	6	1	0	2
Florida	0	0	0	0	0
Georgia	15	13	0	0	2
Hawaii	1	1	0	0	0
Idaho	7	5	2	0	0
Illinois	0	0	0	0	0
Indiana	23	18	2	0	3
Iowa	8	7	0	1	0
Kansas	1	0	0	1	0
Kentucky	18	15	0	1	2
Louisiana	19	16	0	1	2
Maine	6	4	1	1	0
Maryland	39	22	5	2	10
Massachusetts	34	26	1	3	4
Michigan	68	37	9	10	12
Minnesota	0	0	0	0	0
Mississippi	4	4	0	0	0
Missouri	5	4	0	0	1
Montana	0	0	0	0	0
Nebraska	2	2	0	0	0
Nevada	5	2	0	3	0
New Hampshire	14	7	0	0	7
New Jersey	52	32	7	7	6
New Mexico	3	2	1	0	0
New York	118	86	13	5	14
North Carolina	24	20	0	0	4
North Dakota	7	3	1	2	1
Ohio	52	26	4	8	14
Oklahoma	2	1	0	0	1
Oregon	19	9	4	0	6
Pennsylvania	103	66	15	4	18
Rhode Island	0	0	0	0	0
South Carolina	15	13	0	0	2
South Dakota	1	0	0	0	1
Tennessee	24	21	1	0	2
Texas	0	0	0	0	0
Utah	4	1	1	0	2
Vermont	4	3	0	0	1
Virginia	42	28	7	2	5
Washington	34	28	3	1	2
West Virginia	0	0	0	0	0
Wisconsin	1	1	0	0	0
Wyoming	0	0	0	0	0

* Includes applications pending as of the end of 1962.

Table 11.—Branches of national banks: in operation September 30, 1963, opened for business, discontinued, or consolidated, October 1—December 31, 1963, and branches in operation December 31, 1963

State	Branches in Operation Sept. 30, 1963	Branches Opened for business, Oct. 1 to Dec. 31, 1963	Existing branches discontinued or consolidated, Oct. 1 to Dec. 31, 1963	Branches in Operation Dec. 31, 1963
United States	6,897	341	1	7,237
Alabama	88	8	0	96
Alaska	28	10	0	38
Arizona	147	7	0	154
Arkansas	33	2	0	35
California	1,497	49	0	1,546
Colorado	0	0	0	0
Connecticut	125	7	0	132
Delaware	2	1	0	3
District of Columbia	69	1	0	70
Florida	0	0	0	0
Georgia	92	4	0	96
Hawaii	38	0	0	38
Idaho	80	4	0	84
Illinois	0	0	0	0
Indiana	208	10	0	218
Iowa	16	3	0	19
Kansas	23	1	0	24
Kentucky	98	3	0	101
Louisiana	108	10	0	118
Maine	56	5	0	61
Maryland	142	13	0	155
Massachusetts	258	13	0	271
Michigan	286	15	0	301
Minnesota	6	0	0	6
Mississippi	34	2	0	36
Missouri	12	0	0	12
Montana	0	0	0	0
Nebraska	15	2	0	17
Nevada	27	1	0	28
New Hampshire	1	1	0	2
New Jersey	329	14	0	343
New Mexico	34	6	0	40
New York	656	32	0	688
North Carolina	222	9	0	231
North Dakota	4	0	1	3
Ohio	402	20	0	422
Oklahoma	20	1	0	21
Oregon	180	10	0	190
Pennsylvania	592	23	0	615
Rhode Island	51	1	0	52
South Carolina	133	11	0	144
South Dakota	34	0	0	34
Tennessee	151	9	0	160
Texas	0	0	0	0
Utah	44	4	0	48
Vermont	20	2	0	22
Virginia	222	21	0	243
Washington	290	6	0	296
West Virginia	0	0	0	0
Wisconsin	22	0	0	22
Wyoming	0	0	0	0
Virgin Islands	2	0	0	2

Table 12.—Branches of national banks: in operation December 31, 1962, opened for business, discontinued, or consolidated, January 1—December 31, 1963, and branches in operation December 31, 1963

State	Branches in Operation Dec. 31, 1962	Branches Opened for business during 1963	Existing branches discontinued or consolidated during 1963	Branches in Operation Dec. 31, 1963
United States	6,447	834	44	7,237
Alabama	82	14	0	96
Alaska	29	9	0	38
Arizona	144	10	0	154
Arkansas	27	8	0	35
California	1,437	115	6	1,546
Colorado	0	0	0	0
Connecticut	118	15	1	132
Delaware	2	1	0	3
District of Columbia	66	5	1	70
Florida	0	0	0	0
Georgia	88	8	0	96
Hawaii	36	2	0	38
Idaho	69	15	0	84
Illinois	0	0	0	0
Indiana	197	21	0	218
Iowa	10	10	1	19
Kansas	21	3	0	24
Kentucky	94	8	1	101
Louisiana	104	15	1	118
Maine	55	6	0	61
Maryland	134	25	4	155
Massachusetts	246	26	1	271
Michigan	268	34	1	301
Minnesota	6	0	0	6
Mississippi	32	4	0	36
Missouri	11	4	3	12
Montana	0	0	0	0
Nebraska	14	4	1	17
Nevada	25	3	0	28
New Hampshire	1	1	0	2
New Jersey	307	36	0	343
New Mexico	33	7	0	40
New York	586	106	4	688
North Carolina	173	63	5	231
North Dakota	2	2	1	3
Ohio	377	48	3	422
Oklahoma	21	1	1	21
Oregon	174	16	0	190
Pennsylvania	556	68	9	615
Rhode Island	51	1	0	52
South Carolina	117	27	0	144
South Dakota	34	0	0	34
Tennessee	147	13	0	160
Texas	0	0	0	0
Utah	44	4	0	48
Vermont	19	3	0	22
Virginia	187	56	0	243
Washington	279	17	0	296
West Virginia	0	0	0	0
Wisconsin	22	0	0	22
Wyoming	0	0	0	0
Virgin Islands	2	0	0	2

Table 13.—Branches of national banks authorized, by community size and size of bank, October 1—December 31, 1963, and calendar 1963

Category	October 1—December 31, 1963	January 1—December 31, 1963
In cities with population:		
less than 5,000	54	219
5,000 24,900	89	291
25,000 49,900	34	82
50,000 99,900	28	79
100,000 249,900	8	52
250,000 499,900	10	30
500,000 1,000,000	9	60
over 1,000,000	10	30
TOTAL	242	843
By banks with total resources (In millions of dollars)		
Less than $ 9.9	33	106
10.0 to 24.9	39	124
25.0 to 49.9	30	83
50.0 to 99.9	19	76
100.0 to 999.9	76	323
over 1,000	45	131
TOTAL	242	843

Table 14.—De novo branches of insured commercial banks opened for business, by type of bank and state, annually 1960-63, ‡ inclusive

State	1960		1961		1962		1963	
	N	S	N	S	N	S	N	S
United States	429	336	*430	357	486	380	654	410
Alabama	8	3	7	2	6	4	13	6
Alaska	3	1	2	0	5	1	9	1
Arizona	16	9	11	8	8	5	10	10
Arkansas	4	1	4	4	5	6	8	2
California	99	24	84	35	128	*47	107	51
Colorado	1	0	0	0	0	0	0	0
Connecticut	7	3	10	9	7	4	13	14
Delaware	0	1	0	1	0	1	1	3
Dist. of Col.	1	0	1	1	2	1	2	†3
Florida	0	0	0	0	0	0	0	0
Georgia	8	8	13	8	8	7	8	11
Hawaii	3	6	2	3	6	9	2	4
Idaho	1	1	1	4	1	3	11	2
Illinois	0	0	0	0	0	0	0	0
Indiana	14	16	12	16	11	12	20	10
Iowa	4	8	2	6	0	7	8	8
Kansas	5	2	4	3	4	2	3	4
Kentucky	7	7	7	7	7	10	7	10
Louisiana	7	7	5	8	7	7	15	6
Maine	3	2	4	3	6	8	3	3
Maryland	3	12	8	6	13	13	21	10
Massachusetts	13	10	*18	13	18	13	22	11
Michigan	10	31	16	20	29	21	28	22
Minnesota	0	0	0	0	0	0	0	2
Mississippi	3	1	5	7	4	9	4	10
Missouri	5	10	4	8	2	6	3	3
Montana	0	0	0	0	0	1	0	0
Nebraska	8	1	4	1	1	1	4	3
Nevada	1	1	3	1	2	2	3	4
New Hampshire	1	0	0	0	0	0	1	0
New Jersey	20	14	20	12	*25	9	32	15
New Mexico	4	3	4	4	0	5	7	4
New York	39	36	51	43	43	39	66	44
North Carolina	17	34	17	18	*25	*33	26	34
North Dakota	0	2	0	1	1	1	2	3
Ohio	14	25	24	25	23	14	34	24
Oklahoma	4	1	6	4	2	0	2	0
Oregon	8	5	6	3	7	1	16	5
Pennsylvania	25	19	31	27	29	10	55	30
Rhode Island	2	0	0	0	2	6	1	1
South Carolina	10	3	5	11	9	6	19	6
South Dakota	5	1	0	3	0	3	0	2
Tennessee	11	9	12	6	9	9	13	4
Texas	0	0	0	4	0	*13	0	1
Utah	3	2	1	2	1	5	4	7
Vermont	1	0	0	1	0	1	2	0
Virginia	13	9	14	17	16	*19	33	12
Washington	15	5	11	2	12	5	16	3
West Virginia	0	0	0	0	0	0	0	0
Wisconsin	3	3	1	0	2	1	0	2
Wyoming	0	0	0	0	0	0	0	0

N = Branches of national banks.

S = Branches of insured state banks.

Notes: (1) "The term branch includes any branch bank, branch office, branch agency, additional office, or any branch place of business located in any state of the United States . . . at which deposits are received or checks paid or money lent." 64 Stat. 873, Sec. 3 (o)

(2) For comparable data 1953-59, see **The National Banking Review,** Number 1, September 1963, Table 9, pp. 128-29. There are minor revisions in some of the 1960-62 data. Each revised statistic is preceded by an asterisk(*), so these data supersede the 1960-62 data in the September 1963 issue of this **Review.**

† Supervised by Comptroller of the Currency.

‡ End of year.

Table 15.—Mergers,* October 1—December 31, 1963, and calendar 1963

Applications carried over from:			
September 30, 1963	21	1962	16
Applications received:			
October 1—December 31, 1963	17	1963	93
Applications approved:			
October 1—December 31, 1963	23	1963	91
Applications rejected by shareholders:			
October 1—December 31, 1963	0	1963	2
Applications denied:			
October 1—December 31, 1963	1	1963	2
Applications pending:			
December 31, 1963	14	December 31, 1963	14

Transactions completed:

October 1—December 31, 1963		1963	
Mergers	12	Mergers	63
Consolidations	7	Consolidations	16
Purchase of Assets	4	Purchase of Assets	11
Total	23	Total	90

The aggregate total of capital stock and capital accounts for the certificates issued are as follows:

October 1—December 31, 1963

	Charter or purchasing bank	Merg., consol. or selling bank	Combined
Capital stock	$143,884,795	$22,517,200	$181,506,281
Capital accounts	449,030,565	74,359,220	521,593,919

1963

	Charter or purchasing bank	Merg., consol. or selling bank	Combined
Capital stock	$ 613,283,205	$ 52,808,130	$ 675,798,280
Capital accounts	1,965,956,888	174,757,751	2,142,687,769

* Includes mergers, consolidations and purchase and sale transactions, where the emerging bank is a national bank.

BOOK REVIEWS

Federal Reserve Policy Reappraised 1951-1959. By DANIEL S. AHERN. New York: Columbia University Press, 1963. Pp. xii + 376.

When the accord of 1951 reopened the possibility of using flexible monetary policy as an instrument of stabilization, the Federal Reserve found itself in a dilemma. Whereas the classical central bank was primarily concerned with protecting the gold reserve and preventing money panics, the Federal Reserve was committed to a policy of high employment, stable prices, and a high rate of economic growth. Taking account of these additional responsibilities, Roosa and other proponents of the "new" theory of credit control argued that it was desirable for the central bank in these circumstances to increase the instruments and techniques at its disposal and to use these powers boldly and imaginatively. They argued, basing their opinion on the availability theory, that the central bank should, in appropriate circumstances, conduct open market operations in long term securities, attempt to influence the structure of interest rates, and at times even use selective controls. According to this view—the New York bank view—these and other related techniques that emerged in the pegging period could make a substantial contribution to improving the effectiveness of flexible monetary policy.

The *New York bank* view was rejected by a majority of the Federal Reserve Board and the Open Market Committee who took up an extremely *orthodox* view of central banking. No doubt, the majority was just as anxious to increase the effectiveness of flexible monetary policy. But so concerned were they with safeguarding their newly won independence and so concerned were they with the fear of a return to the practices of the pegging period, that they would avoid —almost at any cost—any of the techniques, instruments and practices associated with the pegging period.

The majority took a position that came close to asserting that any attempt by the Federal Reserve to influence the structure of interest rates is equivalent to pegging interest rates. In essence, the majority failed to diagnose correctly the Federal Reserve's errors in the pegging period: they did not see, or did not see clearly, that the Federal Reserve's mistake in the pegging period was not in controlling interest rates but rather in stabilizing interest rates and in letting stability of interest rates become the overriding objective of monetary policy. Failure to make this distinction led the majority to take up a "free-market" theory of credit control which held that central bank interference with free-market forces should be held to a minimum. One corollary of the majority view was that there was no need to increase the kinds of techniques to be used by the central bank; on the contrary, it was, if anything, desirable to limit the central bank to the *traditional* techniques. Accordingly, monetary policy instruments and techniques which did not have classical precedents were rejected, and the central bank's role was to be confined to influencing bank reserve positions and the money supply. But while the Federal Reserve was free to limit itself to the traditional techniques, instruments and practices of central banking, it was not free to limit itself to the traditional objectives of central banking.

In this book, Ahearn reviews Federal Reserve policy since the accord and interprets it in terms of this conflict between the *New York bank* view and the *orthodox* view. Ahearn's thesis is that the Federal Reserve did not decide on the instruments or techniques that they would use solely on the basis of their effectiveness; they also considered whether the particular technique in question fitted in with the orthodox central banking and, more importantly, whether it was associated with the pegging period. Ahearn believes that this combination of constraints reduced the flexibility and the effectiveness of monetary policy in the post accord period. To illustrate: the discount mechanism, an instrument that had traditional standing, was given great prominence, irrespective of whether it was particularly well suited to the task at hand; open market

operations were restricted to short term securities; this restriction fitted in neatly with the *orthodox* view, and, in addition, had the great virtue of avoiding any parallel to the pegging period when vast quantities of long term securities had been purchased. Changes in reserve requirements were made sparingly and only in a downward direction; this technique was to be used only to get the reserve requirements down to their appropriate levels; and other techniques such as regulations W and X—selective credit controls on consumer and mortgage credit—were not used at all.

The decision to restrict open market operations to bills-only provides Ahearn with a good example for illustrating his thesis on the effects of the *orthodox* view on the choice of instruments. This policy attempts to limit the impact of open market operations and denies the Federal Reserve a possible direct influence on long term or intermediate term security yields and prices. Ahearn carefully reviews and analyzes the arguments given by the Federal Reserve for the adoption of the policy and finds them inadequate and inconsistent.

Ahearn argues that the relation between short-term rates and long-term rates is sufficiently complex (especially in the short run) to make it difficult to predict the effect on long rates of any given change in short term yields. He details the failure of bills-only in the 1955-1957 expansion, the tendency of bills-only to create excessive liquidity in the 1954 and 1958 recessions, and the inability of the bills-only policy to produce differential movements in interest rates by means of a swap of Treasury bills for bonds. He also provides some evidence that the bills-only policy did not improve the depth, breadth and resiliency of the long term Government securities market if these market characteristics are measured by the fluctuations in bond prices, by dealers' spreads, and by dealer positions in long terms. His conclusion that the abandonment of the bills-only policy was long overdue seems correct.

Ahearn makes a good case that the decision to adopt bills-only was in large measure due to the *orthodox* views of the majority. But at this point Ahearn comes dangerously close to replacing the traditionalist's dogma of bills-only with his own dogma which attributes most of the failures of monetary policy in the post accord period to bills-only. Thus, I do not see the basis for his statement (p. 339):

> Contrary to Federal Reserve assertions, the evidence strongly suggested that direct dealings in long term bonds, or swaps of long for short term securities, could appreciably affect the structure of yields.

In fairness to the Federal Reserve it should be noted that there is no assurance that a more aggressive approach to open market operations, including the purchase and sale of long term bonds and swapping, would have the desired effect on the structure of yields. Ahearn does not refer to any of the theoretical literature on term structure of interest rates to justify his faith in the efficacy of swapping. Nor does he refer to some recent empirical studies which suggest that for swapping to have an appreciable effect on the structure of yields it would have to be on a massive scale.

The refusal of the Federal Reserve to raise reserve requirements in a boom provides perhaps another example of the manner in which orthodox thinking affected Federal Reserve practices. Federal Reserve authorities reject reserve requirement increases as a tool of credit restraint on the grounds that they are too powerful and too blunt an instrument. Ahearn argues that more flexible use of changes in reserve requirements (including increases) would improve the effectiveness of monetary policy. He cites testimony of Federal Reserve officials that the lowering of reserve requirements in recessions spreads the impact of easier credit policies very rapidly throughout the banking system, and thereby facilitates the transition from recession to recovery. The failure to increase reserve requirements during the years 1951-1959 was responsible, as Ahearn sees the evidence, for the slow spread of credit restraint throughout the economy and for the sluggish response of the money supply. Increasing reserve requirements in periods of prosperity would speed the transmission of restrictive credit policies throughout the economy. Ahearn believes that Federal Reserve reluctance to raise reserve requirements stems primarily from their fear of bluntness and from their concern for pro-

viding the banking system with sufficient profits to maintain an adequate capital structure; but it appears that here too the *orthodox* view has prevailed.

Ahearn succeeds in showing that the reluctance to raise reserve requirements was in some measure due to the *traditionalist* influence in the Federal Reserve system. On general grounds one would be inclined to agree with Ahearn that it might be useful to experiment with more frequent use of reserve requirement changes both in booms and recessions. But here too Ahearn, in battling with the dogma of never using reserve requirement increases, comes close to another dogma of ascribing virtues to reserve requirement changes that go beyond what his evidence will, in fact, support.

This book is divided into four parts. Part I reviews the revival of interest in a flexible monetary policy starting in 1945 and culminating in the accord of 1951, with special attention to the availability doctrine. Part II surveys the techniques used by the Federal Reserve since 1951. Special attention is given to the bills-only policy, the role of discount policy, reserve requirement changes and the desirability of using selective controls on consumer and real estate mortgage credit. Part III examines the impact of Federal Reserve actions on monetary magnitudes and financial markets. The questions taken up are: Has the Federal Reserve controlled the money supply in a desirable way? Should the Federal Reserve concern itself with the behavior of interest rates, the general liquidity of the economy, and the activities of financial intermediaries, or should it focus primarily on the money supply? This section reviews the cyclical behavior of velocity, attempts to assess its significance for monetary policy, and also contains an empirical test of some aspects of the availability doctrine. Part IV summarizes the main conclusions of the study.

One of Ahearn's concluding comments is worth noting. He points out that the Federal Reserve adopted the *orthodox* view not only because they believed that managed money is inconsistent with a free economy but in part also because: "the less the Federal Reserve appeared to be managing money, the less opposition its activities would arouse." (P. 353.)

Ahearn finds that this policy failed. He states:

> Moreover, it seems clear from the volume of public and political attacks on the Federal Reserve whenever it has imposed credit restraint that its efforts to minimize its responsibility for money conditions have been unsuccessful. Indeed, efforts to suggest that the Federal Reserve has little or nothing to do with the level of interest rates, for example, have succeeded only in increasing suspicion about the frankness and good faith of the monetary authorities. It is hard to escape the conclusion that the Federal Reserve would be better advised to assert frankly its duty to manage money and to defend its actions on their merits in promoting the national welfare. Education, not confusion, of the public and of political leaders is the only sound way of gaining the public support the central bank needs if it is to be successful. (P. 353.)

Ahearn's book contains a very useful discussion of monetary policy in the post accord period and thus fills a major gap in the money and banking literature.

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A History of Interest Rates. By SIDNEY HOMER. New Brunswick, New Jersey: Rutgers University Press, 1963. Pp. xvi + 617. $10.00.

This is a fascinating book.

Sidney Homer has set for himself the task of assembling and interpreting the salient facts on interest rates from the beginning of recorded history to the present time. Perhaps the title of the book should have been *The History of Interest Rates*, rather than the more modest *A History of Interest Rates.*

Its coverage ranges from prehistoric and primitive credit and interest in Chapter I, and interest rates in Mesopotamia, Sumer, Babylonia and Assyria in Chapter II, to interest rates in the Sterling Area and in Latin America in Chapters XXVI and XXVII. An initial glance at the Table of Contents and the lists of its 81 tables and 73 charts should make it difficult for the economist, the historian, the professional financial expert, or

the interested layman to put the book down, and it is proper that this should be so.

The volume has five parts, each with four or five chapters which provide the material for a concluding chapter devoted to summary and analysis. Part One covers prehistoric and ancient financial practices and interest rates in the Middle East, Greece, Rome and Byzantium. (We learn that the attempts to set the legal rate at 8⅓ percent in Fifth Century B.C. Rome—it was 20 percent per annum for loans of silver by weight under Hammurabi's 1800 B.C. Code—were unsuccessful, possibly because normal rates then current in Athens were reported at 10-12 percent.)

Part Two is devoted to medieval and Renaissance Europe. It carries the narrative through the 17th Century and also contains a special chapter on usury. In many respects I found these chapters the most interesting in the book, because they provide the first reliable time series of market interest rates on high-grade securities.

Part Three covers European and U. S. interest rate developments in the 18th and 19th Century, and Part Four extends the discussion to the 20th Century. Finally, Part Five contains chapters covering interest rates in ancient and modern China, modern Japan pre- and post-Revolutionary Russia, the Sterling Area, Latin America and selected other countries.

Perhaps the major contribution of the book is the sense of historical perspective on interest rates it easily conveys to the reader, some of which may disabuse even "experts" of a number of widely held facts of dubious substance. For example, many economists have asserted that there is a secular tendency for interest rates to decline, particularly as economies grow wealthier and the ratio of capital to labor increases. Indeed, quoted rates in the Homer volume have, in fact, tended to decline since the literal dawn of recorded history. However, it is clear that the largest component of what we might take to be extremely high rates by current standards of yields on U. S. Treasury securities can readily be attributed to default risk and to transactions costs. Pawnshop loans in the 12th Century Europe at 43 percent, at 48 percent in 2nd Century A.D. Europe, or at 32½-42½ percent in 15th Century Italy are very much in line with current pawnshop rates or small personal loan rates.

Moreover, when one turns to essentially default-free loans with lower transaction costs, it is difficult to find unambiguous evidence for secularly falling rates. The first evidence of rates on low risk loans cited by Homer is for medieval and Renaissance Italy, and these data point to a level of rates not unlike many current ones and, in some respects, rates even lower than those now prevailing in the New York and London money markets. For example, Venetian long-term bonds generally sold at prices which produced yields of between 5 and 6 percent on the long period between 1300 and 1375. Interest payments in the Republic of Genoa on notes due in 4-5 years drifted downward from a level of roughly 4¼ percent-4½ percent between 1522 and 1550 to somewhat *less* than 2 percent between 1610 and 1620. The 5 percent rate paid on deposits by the Medici Bank in late 15th Century Florence is, of course, virtually the same as current rates paid by California Savings and Loan Associations. *"Plus ça change, plus c'est la même chose."*

Homer also cites other evidence for short-term rates which prevailed in Holland during the latter part of the 17th Century, which are extremely low by current standards. One observer in 1668 was quoted as writing, "In Holland any man that is a competent, good husband, prudent and careful in his business, may take up to 500 pounds or 1000 pounds at 3 percent on his note only." 3-4 percent rates were found on medium- and long-term credits, and at the turn of the 17th Century the rate of interest on the Amsterdam Exchange was reported as falling to 2 percent or even 1¼ percent. In England consol yields averaged about 3⅛ percent between 1730 and 1760, or almost half their recent levels. No doubt Congressman Wright Patman would be very pleased if the U. S. public debt could now be financed at these rates.

Many readers will find the author's source material and bibliography an especially valuable part of the book, particularly if they wish to pursue more detailed investigations using the primary sources Homer cites. The encyclopedic coverage and detail of the book makes it a most convenient reference volume

when questions about the history of interest rates are raised. I know of no other single book one can turn to to find the legal maximum on small loans in Second Century Rome, Swedish bond rates and discount rates in the 19th Century or short-term rates during the 20th Century German and Chinese hyperinflations. (Call money on the Berlin Stock Exchange reached 10,950 percent during the 1923 inflation!)

Yet, for all of its prodigious and valuable detail, interestingly tied together by a loosely woven narrative, some readers will be disappointed by the absence of a unifying theme and by the lack of systematic presentation or testing of hypotheses. In these respects, the book does not conform to the research standards of the best of modern technically sophisticated economics. No doubt the book's anecdotal and discursive style and contents reflect the fact that Homer, a partner in Salomon Brothers and Hutzler, lives primarily in the profit or perish business world rather than the publish or perish academic world. From the ivory tower to the Street, however, all will profit from reading this book.

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Monetary Policy and the Financial System. By PAUL M. HORVITZ. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1963. Pp. xx + 492. $8.25.

This is a first-rate textbook in Money and Banking. Horvitz writes well and has a feel for what is both important and interesting. Of course, one never really knows how "teachable" a text is until he has actually used it. But this one would seem to be well worth a trial adoption: the probabilities appear to me to be quite high, higher than with most, that it will succeed in attracting and holding student interest. More can hardly be said of any undergraduate textbook.

The emphasis in the book is on problems and policy alternatives: the problems and policy alternatives facing the individual bank, the central bank, and the economy as a whole. In each case, the ingredients of the matter are presented plainly and succinctly, and the implications of alternative courses of action are outlined clearly and understandably. Horvitz has definite views of his own on most issues, and he does not hesitate to state them; but he scrupulously avoids the luxury of allowing his own views to dominate the discussion. Invariably his own conclusions on topics currently under professional debate are advanced tentatively and undogmatically, with equal space allotted to views at variance with his. This is no small feat, especially in a field where, in recent years, extremist positions have tended to arouse equally extreme emotional reactions.

The only fault I have to find with the book, and it is common to almost every Money and Banking textbook, is the excessive emphasis placed on "monetary" theory relative to the space allocated to "banking" theory. A goodly amount of the book is devoted to the usual topics in monetary theory: the transactions approach, the cash-balance approach, the income-expenditure approach, interest rate theory, etc. On the other hand, relatively little of the book is devoted to the theory and practice of the individual bank as a business firm and the banking system as an industry. I have no quarrel regarding the space allocated to *central* banking, about 40 percent of the book, which I consider necessary and desirable and one of the book's chief virtues. But I do think that *commercial* banking—both the single bank and the industry—deserves more attention than it usually receives in our Money and Banking courses.

Correspondingly, I think that monetary theory is much overstressed. It is not as though the Money and Banking course is the only place where the undergraduate student can get monetary theory. The fact of the matter is that almost every Principles text devotes considerable space to this topic, and the Principles course is invariably a prerequisite for Money and Banking. Furthermore, almost every college has a separate undergraduate course in Aggregate Theory, which covers the same territory once again.

I am not saying that there should be no monetary theory in the Money and Banking course. Of course there should, and it should be presented as early as possible, as a foundation on which to build the entire course. But the essentials of monetary theory which

are necessary for an understanding of central banking and monetary policy need not encompass a detailed repetition of everything already covered in the Principles course, or a duplication of much of what is in the Aggregate Theory course. Instead, that time could well be devoted to the one area unique to the Money and Banking course, namely, the theory and practice of the financial firm and industry.

None of the above should be interpreted as detracting from the excellent job that Horvitz has done. Indeed, Horvitz errs in this direction far less than most. My remarks are directed at almost every Money and Banking text currently in use—and especially the most popular ones. Among them, Horvitz's book is one of the best. But it is time for us to reexamine what we are trying to do in the Money and Banking course, within the context of the total curriculum.

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